

Omega 647

DESCRIPTION:

Omega 647 was developed as a complementary chain lubricant to the widely-accepted and popular Omega 646 "High Tech" Fluid Lubricant for Chains, and utilizes an advanced synthetic formula, making it suitable for higher temperature operating conditions than conventional mineral oil-based products.

PERFORMANCE CHARACTERISTICS:

In general terms, Omega 647 is engineered for high performance lubrication on chains equal to its sister Omega 646. However, in addition to superior lubricity, Omega 647 exhibits three technical advantages:

"STAY-PUT" QUALITY

Omega 647 is blended using a specially-developed high tackiness agent. This agent enables Omega 647, on application to chains, to adhere tenaciously to the pores within the metal but with a built-in elasticity to help itself spread out along the chain and rollers without squeezing out or being pressed out. This extraordinary adhesive quality enables Omega 647 to exert an especially high "cling" force to applied metal surfaces and, even in high speed chain applications where the centrifugal forces cause ordinary lubricants to fling off, Omega 647 remains stubbornly in place.

ELIMINATES STUBBORN, DOWNTIME-INDUCING CHAIN RESIDUES

Omega 647, even exposed to elevated temperatures over extended periods will not dry, burn off or form any carbonaceous gum, varnish or coke. With ordinary chain lubricants, these carbon residues interfere with the free movement of the chain and causes chain "jumping", clatter and slip, increasing chances of breakage and injury or other losses.

In addition, equipment has to be shut down and the chain(s) must be dismantled and cleaned with solvent and brushes - an unenviable and time-and labour-intensive undertaking. Omega 647, even when exposed to extremely high temperatures for long periods will simply vaporize. All that is required is to top up drip, feed or bath tank with more Omega 647. No additional labour or work stoppage for chain cleaning is required.

VIRTUAL "SMOKELESS" QUALITY

Omega 647 exhibits a low smoke and normally virtually "smokeless" quality when subjected to high temperatures. This makes Omega 647 more acceptable for use in food processing plants and also in enclosed or badly-ventilated areas. Worker morale is also improved due to drastically-reduced smoke levels.

VERSATILE PERFORMER:

Omega 647 is perfect for all chain lubrication applications, especially where extremes of temperature are experienced. It is recommended for stenter chains, oven chains, kiln chains, heat treatment conveyors, motorcycle, snowmobile and chainsaw chains. It is also suitable for open gears and lubrication of amusement park ride equipment, such as chains, rails, guides and rollers.

TYPICAL DATA:

TEST	ASTM TEST METHOD	OMEGA 647
ISO Viscosity Grade	D-2422	220
Density kg/L @ 15°C	D-1298	0.867
Viscosity, cSt @ 40°C	D-445	226
@ 100°C	D-445	17.1
Viscosity Index	D-2270	77
Flash Point, COC, °C(°F)	D-92	171(340)
Pour Point °C(°F)	D-97	-27(-17)
Foaming Characteristics, All sequences, After settling	D-892	Nil
Carbon Residue, Conradson, % Mass*	D-189	0.02
Rust-Preventing Characteristics - Salt Water, 48 hours	D-665	Pass
Total Base Number, mg KOH/g	D-2896	2.3
Ash Sulphated, % Mass**	D-874	1.65
Calcium, % Mass	AA	0.066
Magnesium, % Mass	AA	0.037
Nitrogen, % Mass	Kjeldahl	0.035
Phosphorus, % Mass	D-1091	0.090
Sodium, % Mass	AA	0.068
Zinc, % Mass	AA	0.092
Molybdenum Disulphide, % Mass**	Gravimetric	1.0

* In excess of Ash content

** MOS₂ contribution 0.9

SAFETY DATA SHEET



Product name: Omega 647
Supersedes date: 2015-10-19
Product No.:

Page: 1/7
Last revised date: 2016-05-10
SDS-ID: GB-EN/6.1

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

1.1. Product identifier

Product name: Omega 647
Container size: 5 l, 20 l ****Manufactured in Australia****

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

Application: Chain 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
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

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

The product contains: synthetic oils and additives .

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>
1-5	1317-33-5	215-263-9	-	Molybdenum disulphide	-	#
1-5	8012-95-1	232-384-2	-	Paraffin oil	-	

Notes: #: The substance has been assigned an exposure limit.

SAFETY DATA SHEET

Product name:	Omega 647	Page:	2/7
Supersedes date:	2015-10-19	Last revised date:	2016-05-10
Product No.:		SDS-ID:	GB-EN/6.1

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.

SAFETY DATA SHEET

Product name:	Omega 647	Page:	3/7
Supersedes date:	2015-10-19	Last revised date:	2016-05-10
Product No.:		SDS-ID:	GB-EN/6.1

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): Lubricant.

SAFETY DATA SHEET

Product name: Omega 647 Page: 4/7
Supersedes date: 2015-10-19 Last revised date: 2016-05-10
Product No.: SDS-ID: GB-EN/6.1

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits:

<u>CAS-No.:</u>	<u>Chemical name:</u>	<u>As:</u>	<u>Exposure limits:</u>	<u>Type:</u>	<u>Notes:</u>	<u>References:</u>
1317-33-5	Molybdenum insoluble compounds	Mo	10 mg/m3	TWA	-	EH40
		-	20 mg/m3	STEL	15min	

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: Risk of contact: 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.

Hygiene measures: Wash hands after handling. 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: black liquid

Odour: Almost odourless.

pH: Not relevant.

Boiling point: Not available.

Flash point: > 150°C

Relative density: ~ 0,9

Solubility: Immiscible with water

9.2. Other information

Other data: Kinematic viscosity: 220 mm²/s (40°C)

SAFETY DATA SHEET

Product name:	Omega 647	Page:	5/7
Supersedes date:	2015-10-19	Last revised date:	2016-05-10
Product No.:		SDS-ID:	GB-EN/6.1

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

Hazardous Reactions: None known.

10.4. Conditions to avoid

Conditions to avoid None specific.

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

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, eczema and skin cracking.

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. The harmful effects may increase in used oil.

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 slowly degradable.

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: No data available.

12.6. Other adverse effects

Other adverse effects: None known.

SAFETY DATA SHEET

Product name:	Omega 647	Page:	6/7
Supersedes date:	2015-10-19	Last revised date:	2016-05-10
Product No.:		SDS-ID:	GB-EN/6.1

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 06

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: -

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

Transport in bulk: -

SAFETY DATA SHEET

Product name:	Omega 647	Page:	7/7
Supersedes date:	2015-10-19	Last revised date:	2016-05-10
Product No.:		SDS-ID:	GB-EN/6.1

SECTION 15: REGULATORY INFORMATION

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

National regulation: 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.
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.
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 information available.

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: 1

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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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