



*The Ultimate Lubricant*

# 648

## **DESCRIPTION:**

Omega 648 "Smokeless" Hi-Temp Chain Lubricant is a specially formulated high-technology blend of extremely stable, low-evaporation synthetic fluids.

The result of extensive research and on-site testing, Omega 648 has been engineered specifically to meet the ever-increasing demands of modern chain systems exposed to elevated temperatures and high cleanliness production requirements.

## **PERFORMANCE CHARACTERISTICS:**

Omega 648 is a high-quality, high-performance chain lubricant. It features an unsurpassed "stay-in-place" property to ensure consistent, long-lasting, high-adhesion, "wet" lubrication to chains and conveyors subjected to elevated temperatures for extended periods of time. Omega 648 continuously and consistently protects such chains and conveyors with a reliable film of synthetic fluid.

A clear yellow, clean chain lubricant, Omega 648 contains no silicones or solid lubricants. It is non-carbonizing in use at elevated temperatures. Omega 648 will not form hard lacquers or carbon residues that are difficult to remove or, at worst, can build up and block oil-ways to induce rapid and costly wear in the breakdown process.

Omega 648's "smokeless" fully synthetic formulation also ensures low evaporation loss even when used at elevated temperatures so that the need for continuous lubrication is eliminated.

## **HIGH-TECHNOLOGY ADDITIVES:**

The result of superior research and engineering, Omega 648 contains high-technology additives to ensure extreme-pressure / anti-wear capabilities at elevated temperatures over extended periods of time.

The very stable base fluid and effective additives package of Omega 648 extends the working life of chains and tracks with a protective film that clings tenaciously to applied metal surfaces and remains stubbornly in place.

Omega 648 demonstrates a very low order of toxicity. Its special formulation also provides an extremely high level of corrosion protection.

## **MAJOR APPLICATIONS:**

Omega 648 "Smokeless" Hi-Temp Chain Lubricant is especially suited for applications that require a clean production environment, such as dyeing and finishing in the textile industry and paint work curing in the automotive and electronics industry.

Omega 648 has been developed for use on various types of chains, including tenter frames, kiln chains, food baking oven chains and metal heat treatment oven chains.

Omega 648 is also ideal for use in high-temperature tunnels, dryers, shrink wrap machines, textile auxiliaries, steel, plastic, printing and woodworking processes.

## **METHODS OF APPLICATION:**

Omega 648 can be applied by brush, drip, oil can or automatic lubricator.

**TYPICAL DATA:**

TEST	ASTM TEST METHOD	TEST RESULT
ISO Viscosity Grade	D-2422	150
Appearance	Visual	Clear Yellow
Density, Kg/L @ 15°C	D-1298	0.975
Viscosity, cSt @ 40°C	D-445	132
Viscosity, cSt @ 100°C	D-445	15.0
Viscosity Index	D-2270	120
Flash Point, COC, °C (°F)	D-92	304(579)
Fire Point, COC, °C (°F)	D-92	338(640)
Pour Point, °C	D-97	-33
Evaporation Loss, % wt. (6.5 hrs@204°C)	D-972	1
Rust Test		
Distilled Water, 48 hrs.	D-665-A	Pass
Salt Water, 48 hrs.	D-665-B	Pass

# SAFETY DATA SHEET



Product name: Omega 648 - "Smokeless" Hi-Temp Chain Lubricant Page: 1/8  
Supersedes date: 2018-12-10 Last revised date: 2019-03-25  
Product No.: SDS-ID: GB-EN/7.2

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

### 1.1. Product identifier

Product name: Omega 648 - "Smokeless" Hi-Temp Chain Lubricant  
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: NHS: 111

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

CLP: Aquatic Chronic 3;H412

### 2.2. Label elements

H412 Harmful to aquatic life with long lasting effects.  
P273 Avoid release to the environment.  
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 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

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

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## CLP:

%:	CAS-No.:	EC No.:	REACH Reg. No.:	Chemical name:	Hazard classification:	Notes:
10-20	118685-24-8	601-552-0	-	Decanoic acid, mixed esters with heptanoic acid, isononanoic acid, octanoic acid and pentaerythritol	Aquatic Chronic 4;H413	
1-5	68411-46-1	270-128-1	01-2119491299-23-0000 -XXXX	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Aquatic Chronic 3;H412	
<2.5	1330-78-5	215-548-8	01-2119531335-46-XXXX	Tris (methylphenyl)phosphate	Repr. 2;H361 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	

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

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.

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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.  
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.

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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 oil mist, suitable respiratory equipment with combination filter (type A2/P3) can be used.
<u>Hand protection:</u>	Risk of contact: Wear protective gloves. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. Breakthrough time: > 4h; Thickness:> 0.3 mm Other types of gloves can be recommended by the glove supplier.
<u>Eye protection:</u>	Risk of contact: Wear goggles/face shield.
<u>Hygiene measures:</u>	Wash hands after contact. Wash contaminated clothing before reuse.
<u>Environmental Exposure Controls:</u>	Not available.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

<u>Appearance:</u>	Clear liquid.; Oily.
<u>Odour:</u>	almost odourless
<u>pH:</u>	not relevant
<u>Boiling point:</u>	not available
<u>Flash point:</u>	300°C
<u>Explosive limits</u>	not available
<u>Relative density:</u>	~1,0
<u>Solubility:</u>	Immiscible with water

### 9.2. Other information

<u>Other data:</u>	Kinematic viscosity: ~ 130 mm <sup>2</sup> /s (40 °C)
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## 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 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

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, 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.

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## SECTION 12: ECOLOGICAL INFORMATION

### **12.1. Toxicity**

Ecotoxicity: Harmful to aquatic life with long lasting effects.

### **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: 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 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: -

### **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: -



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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 Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895).

### **15.2. Chemical Safety Assessment**

CSA status: Not relevant.

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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: 1  
3, 8, 16

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### Wording of H-statements:

H361	Suspected of damaging fertility or the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

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.  
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