



*The Ultimate Lubricant*

# 66

## **DESCRIPTION:**

Omega 66 is an ultra-low temperature lubricant with outstanding benefits for both military and high technology industrial applications.

## **WILL NOT HARDEN:**

Omega 66 will not congeal or harden during severe freeze-ups. It retains its NLGI 2 rating even at the lowest temperatures. This aspect ensures moving parts are protected and lubricated at all times and especially at start-up in moderate to cold climates. Ordinary lubricants harden and form energy consuming 'drag' on moving parts.

## **CENTRALIZED SYSTEMS:**

Omega 66 works well in centralized lubrication systems and remains stable, regardless of temperature fluctuations.

## **SPECIAL SUPPLEMENTS:**

Omega 66 contains, among other materials -a formation of dibasic esters and polyphenyl ethers in conjunction with fine micronized silica. This highly developed combination provides the essential 'twin-end' temperature stability desirable in low temperature applications. Ordinary greases become solid at low temperatures and form hard, abrasive 'flows' that claw the metal surface. This results in severe wear and rapid seizure. In ultra-cold climates, equipment failure is not only hazardous to life, but is also extremely difficult to rectify.

Omega 66 is also specially suited to bearing applications due to its good "stay put" qualities. It is suitable for most high speed bearings, for example, a 10mm (internal diameter) bearing set operating at 25,000 to 30,000 rpm. or a 20mm bearing at 12,500-15,000 rpm or even a 30mm bearing operating at 8,500 to 10,000 rpm.

Omega 66 meets Military Specification: MIL-G-10924D (Qualification of military specification documented under code M 7628).

## **NOTE:**

**Omega 66 is the lubricant preferred by nearly every efficient military or other quality/efficiency conscious organization in the world. Its super high performance and wide operating temperature range, plus its relatively high flash point provide essentially superior performance in all types of equipment and especially medium to high speed bearings, such as electric motors and automated or robotics equipment and machinery**

## **HIGH LUBRICITY:**

Omega 66 has a smooth, soft texture and forms the essential hydrodynamic "liquid-wedge" between frictional surfaces. It promotes efficient operation and lessens wear and tear.

## **WATER-RESISTANT:**

Omega 66 is water and waterwash resistant. It also resists the tendencies found in ordinary greases to form rust-prone areas where melting snow or ice contract metal surfaces and lift away the protecting grease coating. Omega 66 remains in place and protects all applied surfaces. Similarly, in high speed bearings, the tenacity of Omega 66 ensures applied surfaces remain protected and lubricated despite centrifugal forces which fling off ordinary greases.

**TYPICAL DATA:**

TEST	ASTM TEST METHOD	TEST RESULT
Mineral Oil Base: -		
Viscosity @ 40°C, cSt	D-445	21.5
Viscosity @ 100°C, cSt	D-445	3.7
Flash Point, COC, °C (°F)	D-92	154(310)
Pour Point, °C (°F)	D-97	-54(-65)
Drop Point, °C (°F)	D-566	143(290)
Worked Penetration @77°F, 150 gm cone	D-217	265-295
Oxidation Stability, P.S.I. drop in 100 hrs.	D-942	3.0
Water Washout, % loss after 2 hrs. @175°F	D-1264	#1 rating
Corrosion Resistance	D-1261	Pass
Differential Thermal Analysis @55°C	D-1837	Stable
Low Temperature Torque, -54°C, g-cm	D-1478	
Start		6,785
60 minutes		1,032
Wheel Bearing	GM-9048	Excellent
NLGI Grade	-	#2
Operating Temperature Range, °C (°F)	-	-54 to 121 (-65 to 250)
Color		Blue Sparkle

# SAFETY DATA SHEET



Product name: Omega 66  
Supersedes date: 2020-12-10  
Product No.:

Page: 1/11  
Last revised date: 2023-03-28  
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 66  
UFI: YN50-R07Q-3000-QS5V  
Container size: 400g cartridges, 5 kg, 15 kg

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

Application: Lubricating grease.

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

Supplier: GB importer: Sovereign Lubricants (UK) Ltd, Crowtrees Lane,  
Rastrick, West Yorkshire, HD6 3LZ  
Manufacturer: ITW PP & F Korea Limited T: 01484 718674 - F: 01484 400164  
13th Fl., Unit B, PAX Tower enquiries@sovereign-omega.co.uk  
609 Eonju-ro, Gangnam-Gu www.sovereign-omega.co.uk  
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.  
NHS: 111

# SAFETY DATA SHEET

Product name:	Omega 66	Page:	2/11
Supersedes date:	2020-12-10	Last revised date:	2023-03-28
Product No.:		SDS-ID:	GB-EN/6.1

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## 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.
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 as hazardous waste.

Contains: Reaction products of bis(2-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxid, propylenoxide and amines, C12-14 alkyl (branched); Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-. May produce an allergic reaction.

### 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 and eczema/chapping. The harmful effects may increase in used grease.  
The product contains a small amount of a substance which is harmful to aquatic organisms.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

The product contains: mineral oil and additives.

Only classified substances above threshold limits are shown.

All substances in the product are either registered or exempt from registration under REACH.

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# SAFETY DATA SHEET

Product name:	Omega 66	Page:	3/11
Supersedes date:	2020-12-10	Last revised date:	2023-03-28
Product No.:		SDS-ID:	GB-EN/6.1

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>
10-20	84961-70-6	284-660-7	01-2119485843-26-XXXX	Benzene, mono-C10-13-alkyl derivs., distn. residues	Asp. Tox. 1;H304	
0.1- <2.5	68457-79-4	270-608-0	01-2119493628-22-XXXX-XXXX	Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	Skin Irrit. 2;H315 Eye Dam. 1;H318 Aquatic Chronic 2;H411	SCL
0.1-1	-	931-384-6	01-2119493620-38-XXXX	Reaction products of bis(2-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxid, propylenoxide and amines, C12-14 alkyl (branched)	Acute Tox. 4;H302 Eye Dam. 1;H318 Skin Sens. 1;H317 Aquatic Chronic 2;H411	SCL
<1	-	939-700-4	01-2119982395-25-XXXX	Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-	Skin Irrit. 2;H315 Skin Sens. 1;H317 Aquatic Acute 1;H400 Aquatic Chronic 2;H411	

<u>Chemical name:</u>	<u>SCL</u>	<u>M</u> <u>(ac)</u>	<u>M</u> <u>(chr)</u>
Benzene, mono-C10-13-alkyl derivs., distn. residues		-	-
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	Skin Irrit. 2;H315: C ≥ 15% Eye Dam. 1;H318: C ≥ 3% Eye Irrit. 2;H319: C ≥ 3%	-	-
Reaction products of bis(2-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxid, propylenoxide and amines, C12-14 alkyl (branched)	Eye Dam. 1;H318: 50% ≤ C <100%	-	-
Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-		1	-

Notes:

SCL = Specific Concentration Limit.  
DMSO-content < 3%

References:

The full text for all hazard statements is displayed in section 16.

# SAFETY DATA SHEET

Product name:	Omega 66	Page:	4/11
Supersedes date:	2020-12-10	Last revised date:	2023-03-28
Product No.:		SDS-ID:	GB-EN/6.1

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## 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:** Immediately rinse mouth and drink 1-2 glasses of water. Keep person under observation. If uncomfortable: Transportation to hospital. Bring along 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.  
Move container from fire area if it can be done without risk.

### **5.2. Special hazards arising from the substance or mixture**

**Specific hazards:** During fire, gases hazardous to health may be formed.  
Do not allow runoff to sewer, waterway or ground.

### **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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# SAFETY DATA SHEET

Product name:	Omega 66	Page:	5/11
Supersedes date:	2020-12-10	Last revised date:	2023-03-28
Product No.:		SDS-ID:	GB-EN/6.1

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

### **6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions: Avoid contact with skin and eyes. Eliminate all sources of ignition. 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 in vermiculite, dry sand or earth and place into containers. 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 grease, particularly used grease. Always remove grease with soap and water or skin cleaning agent, never use organic solvents.

Technical measures: Work practice should minimise contact.  
Do not eat, drink or smoke when using the product.

Technical precautions: When working with heated grease, 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. (5-40°C)  
Protect against direct sunlight.

### **7.3. Specific end use(s)**

Specific use(s): Lubricant.

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# SAFETY DATA SHEET

Product name:	Omega 66	Page:	6/11
Supersedes date:	2020-12-10	Last revised date:	2023-03-28
Product No.:		SDS-ID:	GB-EN/6.1

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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. When working with heated grease, mechanical ventilation may be required. 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 use suitable respirator. Use respiratory equipment with particle filter, type P2.

Hand protection: Risk of contact: Wear protective gloves. Nitrile gloves are recommended. Breakthrough time: > 4h; Thickness: > 0.3 mm  
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.

Skin protection: Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures: Wash hands after contact. Change contaminated clothing.

Environmental Exposure Controls: Not available.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Physical state: Grease.  
Colour: Blue.  
Odour: Characteristic.  
Flash point: >200 °C  
Relative density: 0,89 (20°C)  
Solubility: Not available.  
Viscosity: > 20.5 mm<sup>2</sup>/s (40°C)

### 9.2. Other information

Other data: Not available.

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# SAFETY DATA SHEET

Product name:	Omega 66	Page:	7/11
Supersedes date:	2020-12-10	Last revised date:	2023-03-28
Product No.:		SDS-ID:	GB-EN/6.1

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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**

Hazardous Reactions: None known.

### **10.4. Conditions to avoid**

Conditions to avoid Avoid exposure to high temperatures or direct sunlight. Protect from moisture.

### **10.5. Incompatible materials**

Incompatible materials: Avoid contact with acids and oxidising substances.

### **10.6. Hazardous decomposition products**

Hazardous decomposition products: During fire, gases hazardous to health may be formed.

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# SAFETY DATA SHEET

Product name:	Omega 66	Page:	8/11
Supersedes date:	2020-12-10	Last revised date:	2023-03-28
Product No.:		SDS-ID:	GB-EN/6.1

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## 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 repeated contact with skin may cause redness, itching, irritation and eczema/chapping.  
The product contains a small amount of sensitising substance which may provoke an allergic reaction among sensitive individuals.

Eye contact: Direct contact may irritate.

Ingestion: May irritate and cause malaise.

Specific effects: Prolonged or repeated contact with used grease may cause serious skin diseases, such as dermatitis.

### 11.2. Information on other hazards

Endocrine disrupting properties: The product does not contain any substance identified as having endocrine disrupting properties.

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# SAFETY DATA SHEET

Product name:	Omega 66	Page:	9/11
Supersedes date:	2020-12-10	Last revised date:	2023-03-28
Product No.:		SDS-ID:	GB-EN/6.1

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## SECTION 12: ECOLOGICAL INFORMATION

### **12.1. Toxicity**

Ecotoxicity: Greases are generally hazardous to the environment.  
The product contains a substance which is harmful to aquatic organisms.

Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-:  
M(ac) = 1

### **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: This product does not contain any PBT or vPvB substances.

### **12.6. Endocrine disrupting properties**

Endocrine disrupting properties: The product does not contain any substance identified as having endocrine disrupting properties.

### **12.7. 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: 20 01 26

Contaminated packaging: Dispose of contaminated packings as residue.

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# SAFETY DATA SHEET

Product name:	Omega 66	Page:	10/11
Supersedes date:	2020-12-10	Last revised date:	2023-03-28
Product No.:		SDS-ID:	GB-EN/6.1

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## SECTION 14: TRANSPORT INFORMATION

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/AND/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: None known.

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

Transport in bulk: Not relevant. Not relevant.

## SECTION 15: REGULATORY INFORMATION

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

National regulation: UK Statutory Instruments, 2021 No. 904, CONSUMER PROTECTION ENVIRONMENTAL PROTECTION HEALTH AND SAFETY. The REACH etc. (Amendment) Regulations 2021.  
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 Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019 (SI 2019 No. 720), as amended.  
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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# SAFETY DATA SHEET

Product name:	Omega 66	Page:	11/11
Supersedes date:	2020-12-10	Last revised date:	2023-03-28
Product No.:		SDS-ID:	GB-EN/6.1

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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.

The following sections contain revisions or new statements: 1, 2, 3, 4, 11, 12, 13, 14, 15, 16.

Omega Manufacturing Division  
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### Abbreviations and acronyms

used in the safety data sheet: CSA= Chemical Safety Assessment.

CSA= Chemical Safety Assessment.

PBT = Persistent, Bioaccumulative and Toxic.

vPvB = very Persistent and very Bioaccumulative.

UFI = Unique Formula Identifier.

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

### Wording of H-statements:

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

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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.

Made by DHI - Environment and Toxicology, Agern Allé 5, DK-2970 Hørsholm, Denmark.  
[www.dhigroup.com](http://www.dhigroup.com).

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