



The Ultimate Lubricant

# 33

## DESCRIPTION:

Omega 33 is a special diester synthetic compound with an exceptionally high flashpoint. Additives include the unique "Megalite" family of supplements, ensuring extreme temperature resistance up to 315°C (600°F) - and for short periods of exposure. Special viscosity improvers using hybridic polymers have been developed to extend the service life of this lubricant.

Omega 33 is a revolutionary lubricant in that it is potentially the first lubricant to utilize the capillary system of film formation. This means that the lubricant remains stable at all times - irregardless of temperature fluctuations, which has been the major obstacle with all ordinary greases. The high temperature resistance of Omega 33 is nearly double that of ordinary greases.

## RELIABILITY:

Omega 33 stays in position after application. Its unique design causes it to form an outer heat-resistant coating while the inner lubricant continues to perform under extreme heat conditions.

## APPLICATIONS:

Omega 33 is primarily a high temperature-resistant lubricant engineered for high temperature exposure conditions. Kilns and surface baking operations, food processing, steam pumps, babbitt bearings, tooling equipment, foundry machines and equipment, autoclaves, chemical processing, laboratory work, surgical sterilization equipment - there is almost no extreme temperature condition that Omega 33 cannot handle.

## SPECIAL TEXTURE IMPROVERS:

Omega 33 consists of fine fibre texture improvers which come from a breakaway substance called "carbonitic black". This ensures that the texture remains static during severe temperature operations by encapsulation in an unbreakable, impenetrable outer skin.

## EQUIPMENT LASTS LONGER:

Using Omega 33, high temperature equipment usually lasts considerably longer, and runs for substantially longer periods without maintenance.

## SUPPLEMENTS:

Foam Inhibitors	Yes
Calcinated Hydro-Carbons	Yes
Carbonitic Black	Yes
Climatic Adjustors	Yes
Extreme Pressure Properties	Yes
Molybdenum Disulphide	Yes
Nuclear Reactor Stability	Yes
Oxidation Resisters	Yes
Mechanical Stability Improvers	Yes
Shear Stability Improvers	Yes
Rust Inhibitors	Yes

**TYPICAL DATA:**

TEST	ASTM TEST METHOD	TEST RESULT
Base Fluid: -		
Specific Gravity @ 15°C (60°F)	D-1298	0.9365
Viscosity @ 100°F SUS	D-88	3000-3500
Viscosity @ 210°F, SUS	D-88	250
Viscosity Index	D2270	140
Flash Point, COC, °C (°F)	D-92	316(600)
Dropping Point, °C (°F)	D566	None
Worked Penetration @ 77°F, 150 gm cone	D-217	275-305
Timken OK Load, Lbs. min.	D-2509	40
Rust Prevention	D-1743	# 1 Rating
Oxidation Stability, p.s.i. loss in 100 hours	D-942	5
Water Washout,% Loss after 2 hrs @ 175°F	D-1264	4
Roll Stability, Point Change	D-1831	10
Lubricant Stability	-	# 1 Rating
NLGI Grade	-	# 2
Operating Temperature Range, °C (°F)	-	-20 to 232 (-1 to 450)
Color		Black

# SAFETY DATA SHEET



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

### 1.1. Product identifier

Product name: Omega 33  
Container size: 5 kg, 15 kg

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

Application: High temperature grease.

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

Supplier: EU importer:

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.

Manufacturer: Omega Manufacturing Division  
13th floor, Unit B, PAX Tower, 609 Eonju-ro, Gangnam-Gu, Seoul, Korea 06108  
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### 1.4. Emergency telephone number

Emergency telephone: NHS: 111

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

CLP: The product is not classified.

### 2.2. Label elements

The substance/mixture does not meet the criteria for classification, but the following labelling must be applied:

Contains: Calcium bis(dinonylnaphthalenesulphonate). May produce an allergic reaction.

EUH210 Safety data sheet available on request.

### 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. The harmful effects may increase in used grease. Greases are generally hazardous to the environment.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

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

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## CLP:

%:	CAS-No.:	EC No.:	REACH Reg. No.:	Chemical name:	Hazard classification:	Notes:
10-30	1333-86-4	215-609-9	-	Carbon black	-	#
1-5	1317-33-5	215-263-9	-	Molybdenum disulphide	-	#
0,1-<1	15890-25-2	240-028-2	-	Tris (dipentylidithiocarbamate- S,S')antimony	Aquatic Chronic 2;H411	
0,1-<1	57855-77-3	260-991-2	-	Calcium bis (dinonylnaphthalenesulphon ate)	Eye Irrit. 2;H319 Skin Irrit. 2;H315 Skin Sens. 1;H317	

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

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

<u>Inhalation:</u>	Move into fresh air and keep at rest. In case of persistent throat irritation or coughing: Seek medical attention and bring these instructions.
<u>Skin contact:</u>	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.
<u>Eye contact:</u>	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

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 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.

## 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.

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.

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

Specific use(s): Lubricant.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

This/these substance(s) is/are subject to an Occupational Exposure Limit and may present an inhalation risk if present as dust or fume. This is not relevant to the current physical state of the product, which is not in a respirable form.

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>
-	Carbon black	-	3.5 mg/m <sup>3</sup>	TWA	-	EH40
		-	7 mg/m <sup>3</sup>	STEL	15min	
-	Molybdenum insoluble compounds	Mo	10 mg/m <sup>3</sup>	TWA	-	EH40
		-	20 mg/m <sup>3</sup>	STEL	15min	

Notes: EH40: EH40/2005.

### 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. 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 apron or protective clothing in case of contact.

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

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: Grease.  
Colour: Black.  
Odour: Almost odourless.  
Odour threshold: Not available.  
pH: Not available.  
Melting point / freezing point: > 180 °C  
Boiling point: Not available.  
Flash point: > 240 °C  
Evaporation rate: Not available.  
Flammability (solid, gas): Not available.  
Explosive limits Not 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 temperature (°C): Not available.  
Decomposition temperature (°C): Not available.  
Viscosity: Not available.  
Explosive properties: Not available.  
Oxidising properties: Not available.

### 9.2. Other information

Other data: Not available.

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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 Heat, sparks, flames.

### **10.5. Incompatible materials**

Incompatible materials: Strong oxidising substances.

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

Hazardous decomposition products: None known.

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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: 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 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. The harmful effects may increase in used grease.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

Ecotoxicity: Greases are generally hazardous to the environment.

### 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. Other adverse effects

Other adverse effects: None known.

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## 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

## 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: None known.

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

Transport in bulk: 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: Statutory Instruments 2008 No. 2852 - The REACH Enforcement Regulations 2008.  
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**

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.

The following sections contain revisions or new statements: 2, 8, 12, 14, 15, 16.

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### Abbreviations and acronyms

used in the safety data sheet: PBT = Persistent, Bioaccumulative and Toxic.  
vPvB = very Persistent and very Bioaccumulative.

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

### Wording of H-statements:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
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, Ager Allé 5, DK-2970 Hørsholm, Denmark.  
[www.dhigroup.com](http://www.dhigroup.com).