

35

DESCRIPTION:

Omega 35 is a highly-specialized High Temperature Stable grease that has been engineered to continue lubricating applied parts at temperatures where ordinary greases "carbonize" and form abrasives that damage equipment. It consists of a synthetic, non-ash base or "carrier" agent, into which a high concentration of super-micronized, infinitesimal fine-mesh, lubricant-grade Megalite Solid Lubricant (MSL) is suspended.

OPERATING PRINCIPLE:

Omega 35 features a highly unique lubricating principle. Its finely-balanced proportion of synthetic carrier and micronized MSL gives it good penetration power, good "spreadability" and enhanced lubricating qualities.

The synthetic is designed merely to be the "carrier" of the solid lubricant, to enable the latter to be introduced into the part(s) to be lubricated. Once the operating temperature increases to the volatilization range of the synthetic "carrier", it flashes off and leaves the super-fine, Megalite Solid Lubricant (MSL) in place. The MSL remains and continues to provide unparalleled anti-friction lubrication performance to the applied parts.

IN-BUILT SUPERIORITY:

Omega 35's MSL provides many advantages over ordinary high temperature solid lubricants, such as molybdenum disulphide (commonly called "moly"). Moly does have high temperature qualities in the region of 700°C, but at such temperatures oxidize to form hard, abrasive residues that can damage equipment.

PERFECT FOR "SEARING TEMPERATURE" APPLICATIONS:

Omega 35 is engineered as a general-purpose grease for virtually every type of application where exceptionally high heat is unavoidable. Some examples, include:

- OVEN CARS
- BRICK KILN CARS
- STEEL MILLS
- BAKING & COOKING OVENS
- FOUNDRIES...and all slow-moving, high temperature applications.

IMPORTANT:

- 1. Product should be thoroughly mixed with a paddle to ensure uniform consistency before applying to bearings and other parts to be lubricated.
- 2. The lubricated parts should be cleaned to remove the previous lubricant completely prior to applying Omega 35.
- 3. Avoid over-greasing with Omega 35. Otherwise, too much solid lubricant will hinder the free rotation of the bearing. For roller bearings, apply grease to fill about 25% of the housing capacity only. During regular maintenance period, dismantle bearings for cleaning and regreasing.



TYPICAL DATA:

TEST	ASTM TEST METHOD	TEST RESULT	
Base Fluid: -			
Viscosity @ 40°C (104°F) cSt	D-445	35	
Viscosity @ 100°C (212°F) cSt	D-445	6	
Viscosity Index	D-2270	116	
Pour Point, °C (°F)	D-97	-8 to -15 (17.6 to 4)	
Flash Point, °C (°F)	D-92	196(385)	
4-ball EP weld point, kgf	D-2596	620	
4-ball wear scar, mm	D-2266	0.8	
Worked Penetration @ 77°F, 150gm. Cone	D-217	270-310	
Specific Gravity @ 15°C (60°F)	D-1298	1.33	
Dropping Point °C (°F)	D-566	260(500)+	
Texture		Smooth	





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

1.1. Product identifier

Product name: Omega 35
Container size: 5 kg, 15 kg

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

<u>Application:</u> High temperature 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

Further information can be

obtained from: magna@magnagroup.com

1.4. Emergency telephone number

Emergency telephone: Call a Poison Center, emergency number or doctor/physician.

NHS: 111

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

<u>CLP:</u> 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:

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 and

eczema/chapping. The harmful effects may increase in used grease.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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3.2. Mixtures

Only classified substances above threshold limits or substances with an exposure limit are shown.

CLP:

<u>%: CAS-No.: EC No.: REACH Reg. No: Chemical name: Hazard classification: Notes:</u>

30-60 7782-42-5 231-955-3 - Graphite - #

0.5-2 7631-86-9 231-545-4 - Silicon dioxide, amorphous -

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

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.

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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media: 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

<u>Specific hazards:</u> During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Protective equipment for fire- Selection of respiratory protection for fire fighting: follow the general fire

<u>fighters:</u> precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid contact with skin and eyes. In case of spills, beware of slippery floors and

surfaces. Follow precautions for safe handling described in this safety data sheet.

6.2. Environmental precautions

Environmental Avoid discharge into drains, water courses or onto the ground.

precautions:

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Absorb spillage with non-combustible, absorbent material. Clean contaminated

area with oil-removing material.

6.4. Reference to other sections

<u>References:</u> For personal protection, see section 8.

For waste disposal, see section 13.

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SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

<u>Safe handling advice:</u> 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.

<u>Technical measures:</u> Work practice should minimise contact.

<u>Technical precautions:</u> When working with heated grease, mechanical ventilation may be required.

7.2. Conditions for safe storage, including any incompatibilities

<u>Technical measures for safe</u> No special precautions.

storage:

Storage conditions: Store in tightly closed original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific use(s): Lubricant.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits:

CAS-No.:	Chemical name:	As:	Exposure limits:	Type:	Notes:	References:
7782-42-5	Graphite, respirable dust	-	4 mg/m3	TWA	-	EH40
7782-42-5	Graphite, inhalable dust	-	10 mg/m3	TWA	-	EH40
-	Silica, amorphous, respirable dust	-	2.4 mg/m3	TWA	-	EH40
-	Silica, amorphous, inhalable dust	-	6 mg/m3	TWA	-	EH40

Notes: EH40: EH40/2005.

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.

<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.

Respiratory equipment: In case of inadequate ventilation use suitable respirator. Use respiratory

equipment with particle filter, type P2.

<u>Hand protection:</u> 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.

<u>Eye protection:</u> Risk of contact: Wear approved safety goggles.

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

<u>Hygiene measures:</u> 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

Physical state: Grease.

Odour: Almost odourless.

pH: Not relevant.

Melting point / freezing point: > 180°C

Boiling point: Not available.

Flash point: > 240°C

Evaporation rate: Not relevant. Flammability (solid, gas): Not available. **Explosive limits** Not available. Vapour pressure: Not relevant. Vapour density: Not relevant.

~0.9 Relative density:

Insoluble in water. Solubility:

Partition coefficient (n-

octanol/water):

Not available.

Auto-ignition

Not available.

temperature (°C):

Decomposition Not available.

temperature (°C):

Viscosity: Not relevant. Explosive properties: Not available. Not available. Oxidising properties:

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

Hazardous Reactions: None known.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Incompatible materials: Strong oxidising substances.

10.6. Hazardous decomposition products

Hazardous decomposition

products:

None in particular.

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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 Based on available data, the classification criteria are not met.

sensitisation:

Germ cell mutagenicity: Based on available data, the classification criteria are not met. Carcinogenicity: Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Reproductive Toxicity:

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 vapours formed during heating of the product will irritate the

respiratory system and provoke coughing.

Degreasing. Prolonged or repeated contact with skin may cause redness, itching, Skin contact:

irritation and eczema/chapping.

Eye contact: Direct contact may irritate.

May irritate and cause malaise. Ingestion:

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 The product does not contain any substance identified as having endocrine

properties: disrupting properties.

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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity: There are no data on the ecotoxicity of this product. Greases 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

<u>PBT/vPvB:</u> This product does not contain any PBT or vPvB substances.

12.6. Endocrine disrupting properties

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

<u>properties:</u> 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: 12 01 12

<u>Contaminated packaging:</u> Dispose of contaminated packings as residue.

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SECTION 14: TRANSPORT INFORMATION

The product is not regulated as dangerous goods under IMDG Code, IATA-DGR and 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:

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.

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.

1, 4, 7, 8, 11, 12, 13, 15, 16. Omega Manufacturing Division 13th floor, Unit B, PAX Tower, 609 Eonju-ro, Gangnam-Gu, Seoul, Korea 06108

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Abbreviations and acronyms

<u>used in the safety data sheet:</u> CSA= Chemical Safety Assessment.

PBT = Persistent, Bioaccumulative and Toxic. vPvB = very Persistent and very Bioaccumulative.

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.