

## **DESCRIPTION:**

Omega 99N is a "Nuclear Grade" Anti-Seize Compound that is possibly the finest quality nickel-based anti-seize available. It is 100% lead and sulphur-free and also contains absolutely no chlorides.

# PROTECTS EXPENSIVE STAINLESS & HIGH NICKEL ALLOYS:

Stainless and high nickel fittings are highly susceptible to corrosion by chlorines and sulphur. The sulphur causes the weakening of welds made on nickel alloys and the chlorides cause corrosion cracking and pitting of stainless.

#### "NUCLEAR GRADE":

Ordinary anti-seize products contain between 200 to 300 p.p.m. of the potentially-dangerous contaminates sulphur and chlorides, while most of the advanced countries recommend an allowable limit of between 50 p.p.m. for chlorine and 100 p.p.m. for sulphur for any anti-seize used in nuclear plants. Omega 99N is 100% sulphur and chloride free and is recommended for atomic-powered generating plants.

#### TOTALLY HOMOGENOUS -NO SETTLING PROBLEMS:

With ordinary anti-seize products, the product is often only a suspension agent, such as gelling agent, and powdered metal. These cheap products suffer from serious separation problems. When separation takes place and the product is applied to fittings, the metal powder is unevenly distributed through the fitted joints, resulting in increased risk of failure.

Omega 99N uses a unique and proprietary mixing process that keeps the fine-mesh nickel particulates in virtually perpetual suspension and finely dispersed within the carrier base oil. This prevents "hit and miss" protection for treated threaded parts.

## **SUPERIOR PROTECTION:**

Omega 99N protects all types of threaded assemblies, press fits and fittings, and retains its corrosion preventing properties from (Minus) -180°C (-292°F) all the way up to 1,260°C (2,300°F), without breakdown. Omega 99N prevents metal-to-metal seizure -if parts are coated prior to assembly-and will withstand acids, alkalis, water, salt air atmosphere and most chemical fumes. Omega 99N is simply brushed into the parts to be treated, and because of its super micronized metal composition, will not affect the clearance of the joint or cause difficult tightening.

#### WHERE TO USE:

Omega 99N is the perfect solution for anti-seize applications in nuclear power plants and also plant and equipment using stainless steel and nickel alloy fasteners, such as oil, chemical and natural gas refineries, chemical plants, paper and pulp mills, waste disposal plants, water & saline treatment plants, steam plants, marine applications, on ships, etc.

It can be used for both stationary equipment and for mobile applications, such as cars, jet engines, trucks, buses, diesel gen-sets, mobile cranes, etc.





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

#### 1.1. Product identifier

Product name: Omega 99N

Container size: 1 lb (0,45 kg) \*\*Manufactured in Canada\*\*

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

<u>Application:</u> Lubricating grease.

1.3. Details of the supplier of the safety data sheet

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

magna@magnagroup.com www.magnagroup.com

1.4. Emergency telephone number

Emergency telephone: NHS: 111

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#### **SECTION 2: HAZARDS IDENTIFICATION**

#### 2.1. Classification of the substance or mixture

CLP: Skin Sens. 1;H317

Carc. 2;H351 STOT RE 1;H372 Aquatic Chronic 2;H411

## 2.2. Label elements



Danger

Contains: Nickel

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

P201 Obtain special instructions before use.

P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor.

P260 Do not breathe dust/fume

P280 Wear protective clothing and gloves.
P273 Avoid release to the environment.

P501 Dispose of contents/container in accordance with local regulations.

Restricted to professional users.

2.3. Other hazards

Other: Risk of sensitisation to nickel. 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

#### 3.2. Mixtures

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

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<u>%:</u>	CAS-No.:	EC No.:	REACH Reg. No:	Chemical name:	Hazard classification:	Notes:
10-30	7782-42-5	231-955-3	01-2119486977-12- XXXX	Graphite	-	#
5-10	7440-02-0	231-111-4	01-2119438727-29- XXXX	Nickel	Carc. 2;H351 STOT RE 1;H372 Skin Sens. 1;H317	S; 7
5-10	1314-13-2	215-222-5	01-2119463881-32- XXXX	Zinc oxide	Aquatic Acute 1;H400 Aquatic Chronic 1;H410	
5-10	7429-90-5	231-072-3	01-2119529243-45- XXXX	Aluminium powder (stabilised)	Water-react. 2;H261 Flam. Sol. 1;H228	T

Notes: S: May not require a label.

7: Alloys containing nickel are classified for skin sensitisation, when the release

rate of 0,5 µg Ni/cm2/week (EN 1811) is exceeded.

T: If the substance is marketed in a form not having one or more of the physical hazards indicated by the harmonised classification and tests shows that the substance does not exhibit the specific physical hazard(s), it shall be classified in

accordance with the result(s) of the test(s).

#: The substance has been assigned an exposure limit. See section 8.

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: Seek medical attention and bring these instructions.

Skin contact: Remove contaminated clothing immediately and wash skin with soap and water.

In case of eczema or other skin disorders: Seek medical attention and bring

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.

<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

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: Small fires: Extinguish with carbon dioxide or dry powder.

Larger fires: Extinguish with foam, carbon dioxide or dry powder.

#### 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

<u>Protective equipment for fire-</u> Selection of respiratory protection for fire fighting: follow the general fire

fighters: precautions indicated in the workplace.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Personal precautions: Avoid any exposure. Follow precautions for safe handling described in this safety

data sheet.

6.2. Environmental precautions

**Environmental** Do not discharge into drains, water courses or onto the ground.

precautions:

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Collect spillage in metal/plastic container with tight-fitting lid, with indication of the

contents.

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 any exposure. Always remove

grease with soap and water or skin cleaning agent, never use organic solvents.

Technical measures: Use work methods which minimise spreading of vapours, dust, smoke, aerosols,

> splashes etc. to the extent technically possible. Do not eat, drink or smoke when using the product. Do not store tobacco, food or beverage in work rooms or areas

where the product is used.

**Technical precautions:** 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:

Store in tightly closed original container. Storage conditions:

7.3. Specific end use(s)

Specific use(s): Grease.

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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:
-	Nickel and water- insoluble nickel inorganic compounds (except nickel tetracarbonyl)	Ni	0.5 mg/m3	TWA	Sk; Carc; Sen	EH40
7782-42-5	Graphite, inhalable dust	-	10 mg/m3	TWA	-	EH40
7782-42-5	Graphite, respirable dust	-	4 mg/m3	TWA	-	EH40
7429-90-5	Aluminium metal, respirable dust	-	4 mg/m3	TWA	-	EH40
7429-90-5	Aluminium metal, inhalable dust	-	10 mg/m3	TWA	-	EH40

Notes: Sk: Can be absorbed through skin.

Carc: Capable of causing cancer and/or heritable genetic damage.

Sen: Capable of causing occupational asthma.

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: Wear protective gloves. Nitrile gloves are recommended.

Breakthrough time: > 4h; Thickness: 0.3 mm

Other types of gloves can be recommended by the glove supplier.

Eye protection: Risk of contact: Wear goggles/face shield.

Skin protection: Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures: When using do not eat, drink or smoke. Personal protection may not be worn

during meal breaks. Personal protection must be kept separate from other clothes. Do not store tobacco, food or beverage in work rooms or areas where

the product is used.

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 / grey paste

Odour: Slight odour. (Sweetish.)

<u>pH:</u> not relevant<u>Boiling point:</u> not available

Flash point: 193°C

Explosive limits not available

Vapour pressure: not available

Relative density: 1,33

<u>Solubility:</u> insoluble in water <u>Decomposition</u> not available

temperature (°C):

9.2. Other information

Other data: Not available.

## **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

<u>Hazardous Reactions:</u> None known.

10.4. Conditions to avoid

Conditions to avoid None specific.

10.5. Incompatible materials

<u>Incompatible materials:</u> Strong oxidising substances, strong acids and strong bases.

10.6. Hazardous decomposition products

<u>Hazardous decomposition</u> None in particular.

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#### **SECTION 11: TOXICOLOGICAL INFORMATION**

#### 11.1. Information on toxicological effects

The harmful effects may increase in used grease.

Acute Toxicity (Oral):

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.

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

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

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

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

Respiratory or skin

sensitisation:

May cause an allergic skin reaction.

<u>Germ cell mutagenicity:</u> Based on available data, the classification criteria are not met.

<u>Carcinogenicity:</u> Suspected of causing cancer.

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: Causes damage to organs through prolonged or repeated exposure if inhaled.

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

<u>Inhalation:</u> Harmful: danger of serious damage to health by prolonged exposure through

inhalation.

Skin contact: Degreasing. Risk of sensitisation to nickel. Prolonged or frequent contact may

cause redness, itching, eczema and skin cracking.

Eye contact: Direct contact may irritate.

<u>Ingestion:</u> May irritate and cause malaise.

Specific effects: Causes damage to organs through prolonged or repeated exposure. May cause

sensitisation. Prolonged or repeated contact with used grease may cause serious

skin diseases, such as dermatitis.

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## **SECTION 12: ECOLOGICAL INFORMATION**

12.1. Toxicity

<u>Ecotoxicity:</u> Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

<u>Degradability:</u> The product contains inorganic compounds which are not biodegradable. The

other substances of the product are 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: 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.

<u>Waste from residues:</u> EWC-code: 12 01 12 <u>Contaminated packaging:</u> EWC-code: 15 01 10

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## **SECTION 14: TRANSPORT INFORMATION**

The product is covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

<u>UN-No:</u> 3077

14.2. UN proper shipping name

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide)

14.3. Transport hazard class(es)

Class: 9

14.4. Packing group

PG: III

14.5. Environmental hazards

Marine pollutant: Yes.
Environmentally Hazardous Yes.

substance:

14.6. Special precautions for user

Special precautions: -

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

<u>Transport in bulk:</u> -

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#### **SECTION 15: REGULATORY INFORMATION**

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

Special provisions:

As a general rule, persons under 18 years of age are not allowed to work with

this product. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.

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 Management of Health and Safety at Work Regulations 1999 (SI 1999 No. 3242), 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

<u>CSA status:</u> No information available.

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#### **SECTION 16: OTHER INFORMATION**

For restrictions on use see section 15.

The following sections contain revisions or new statements: 3, 8, 16

Omega Manufacturing Division 13th floor, Unit B, PAX Tower, 609 Eonju-ro, Gangnam-Gu, Seoul, Korea 06108

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Web site: www.magnagroup.com

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<u>Abbreviations and acronyms</u> PBT = Persistent, Bioaccumulative and Toxic. <u>used in the safety data sheet:</u> vPvB = very Persistent and very Bioaccumulative.

Key literature references and None.

sources for data:

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

Wording of H-statements:

H228 Flammable solid.

H261 In contact with water releases flammable gases.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.H411 Toxic to aquatic life with long lasting effects.

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.