

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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| OPIM99N-1 | Ver. 2.0 | Rev. 3.0 |
|-----------------|----------|----------|
| Rev. Date: 2 Ja | an 2019 | |
| Reference: CKL | | |



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2016-05-10

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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) |
| 1.2. Relevant identified uses o | f the substance or mixture and uses advised against |
| Application: | Lubricating grease. |
| 1.3. Details of the supplier of the | he safety data sheet |
| <u>Supplier:</u> | Sovereign Lubricants (UK), Ltd Crowtrees Lane - Rastrick - West Yorkshire - HD6 3LZ Tel:01484 718674 Fax:01484 400164 enquiries@sovereign-omega.co.uk www.sovereign-omega.co.uk |
| <u>Manufacturer:</u> | 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 nur | nber |

Emergency telephone: NHS: 111

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SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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|--------|----|---|
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| | | • |
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Skin Sens. 1;H317 Carc. 2;H351 STOT RE 1;H372 Aquatic Chronic 2;H411

2.2. Label elements



Danger

| <u>Contains:</u> | 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 | |
| <u>Other:</u> | 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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CLP:

| <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 | т |
| 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). | | | iysical ne | | | |
| | | | #: The substance ha | as been assigned an expos | sure limit. See section 8. | |
| Refere | ences: | | The full text for all h | azard statements is display | yed 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. |
| <u>Skin contact:</u> | 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. |
| <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. |
| 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 symptom | s and effects, both acute and delayed |
| | |

<u>Symptoms/effects:</u> 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 fr | om 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. |
| | |

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 precaution | <u>IS</u> | |
| 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: | Collect spillage in metal/plastic container with tight-fitting lid, with indication of the contents. | |
| 6.4. Reference to other sections | | |
| <u>References:</u> | 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. | |
| <u>Technical measures:</u> | 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 | | |
| Technical measures for safe storage: | No special precautions. | |
| Storage conditions: | Store in tightly closed original container. | |
| 7.3. Specific end use(s) | | |
| <u>Specific use(s):</u> | Grease. | |
| | | |

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits:

| CAS-No.: | Chemical name: | <u>As:</u> | Exposure limits: | <u>Type:</u> | Notes: | References: |
|---------------------------------|--|---|--|--------------|------------------|-------------|
| - | Nickel and water- insoluble nickel inorganic compound (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: | | • | ed through skin. ausing cancer and/or heri using occupational asthn | - | ic damage |). |
| 8.2. Exposur | e controls | | | | | |
| Engineering | <u>measures:</u> | • | ventilation. When working required. Provide access fatty cream. | | - | |
| Personal pro | onal protection: Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. | | | | | |
| Respiratory e | equipment: | - | ate ventilation use suitab rticle filter, type P2. | le respirato | r. Use resp | biratory |
| Hand protect | <u>tion:</u> | Breakthrough time | oves. Nitrile gloves are re : > 4h; Thickness: 0.3 mr /es can be recommendec | n | | |
| Eye protection | on: | Risk of contact: We | ear goggles/face shield. | | | |
| Skin protecti | on: | Wear appropriate of | clothing to prevent any po | ssibility of | skin conta | ct. |
| <u>Hygiene mea</u> | asures: | When using do not eat, drink or smoke. Personal protection may not be we during meal breaks. Personal protection must be kept separate from other clothes. Do not store tobacco, food or beverage in work rooms or areas wh the product is used. | | om other | | |
| <u>Environment</u> Controls: | al Exposure | 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 |
|------------------------------------|---------------------------|
| <u>Odour:</u> | Slight odour. (Sweetish.) |
| <u>pH:</u> | not relevant |
| Boiling point: | not available |
| Flash point: | 193°C |
| Explosive limits | not available |
| Vapour pressure: | not available |
| Relative density: | 1,33 |
| <u>Solubility:</u> | insoluble in water |
| Decomposition temperature (°C): | not available |
| 9.2. Other information | |
| <u>Other data:</u> | 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 |
| Hazardous Reactions: | None known. |
| 10.4. Conditions to avoid | |
| Conditions to avoid | None specific. |
| 10.5. Incompatible materials | |
| Incompatible materials: | Strong oxidising substances, strong acids and strong bases. |
| 10.6. Hazardous decomposition | on products |
| Hazardous decomposition products: | 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): | 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. |
| <u>Respiratory or skin</u> sensitisation: | May cause an allergic skin reaction. |
| Germ cell mutagenicity: | Based on available data, the classification criteria are not met. |
| Carcinogenicity: | 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. |
| Inhalation: | 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. |
| Ingestion: | 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 Ecotoxicity:

Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

Degradability:

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.

| Waste from residues: | EWC-code: 12 01 12 |
|-------------------------|--------------------|
| Contaminated packaging: | 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).

| <u>14.1. UN number</u> | | | |
|--|---|--|--|
| UN-No: | 3077 | | |
| 14.2. UN proper shipping nan | ne | | |
| Proper Shipping Name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide) | | |
| 14.3. Transport hazard class(| es) | | |
| <u>Class:</u> | 9 | | |
| 14.4. Packing group | | | |
| <u>PG:</u> | III | | |
| 14.5. Environmental hazards | | | |
| Marine pollutant: | Yes. | | |
| Environmentally Hazardous substance: | Yes. | | |
| 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: | | | |

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

<u>Special provisions:</u> 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

CSA status:

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

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The Omega Trade Mark is the property of ITW, Inc., and is used under license by ITW PP & F Korea Limited.

<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: | | |

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