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

Product Name:	PERMALUB EKO-4
Use of the product:	Lubricating grease.
Product Code:	None.
Company Name:	NIPPECO LTD.
Address:	No385-14 SHIINOMORI SODEGAURA CHIBA 299-0247 JAPAN
Telephone Number:	+81-438-60-2180

SECTION2 HAZARDS IDENTIFICATION

Classification(EC1272/2008): The product is not classified as hazardous according to the CLP regulation.

Physical Hazards:

Flammable solids:	Not classified.
Pyrophoric solids:	Not classified.
Self-heating substances and mixtures:	Not classified.
Corrosive to metals:	Not classified.

Health Hazards:

Acute toxicity-Oral:	Classification not possible.
Acute toxicity-Dermal:	Classification not possible.
Acute toxicity-Inhalation: mist:	Classification not possible.
Skin corrosion/irritation:	Classification not possible.
Eye damage/ irritation:	Classification not possible.
Sensitization-Respiratory:	Classification not possible.
Sensitization-Skin:	Classification not possible.
Germ cell mutagenicity:	Classification not possible.
Carcinogenicity:	Classification not possible.
Reproductive toxicity:	Classification not possible.
Specific target organ toxicity -Single exposure:	Classification not possible.
Specific target organ toxicity -Repeated exposure:	Classification not possible.

Environmental Hazards:

Aspiration hazard:	Classification not possible.
Hazardous to the aquatic environment -Acute (short-term) aquatic toxicity:	Classification not possible.
Hazardous to the aquatic environment -Chronic (long term) aquatic toxicity:	Classification not possible.

The hazards without the above mention are "Not applicable" or "Classification not possible".

Classification(OSHA HCS 29 CFR 1910.1200):

The product is not classified as hazardous according to OSHA GHS regulations within the United States.

Hazard Pictogram(s): No pictogram.

Signal Word: No signal word.

Hazard Statement(s): No hazard statement.

Precautionary Statement(s):

Prevention:	Not required.
Response:	Not required.
Storage:	Not required.
Disposal:	Not required.
Other Hazards:	Combustibility. Keep away from ignition sources such as heat/sparks/open flames.
	Vapors from this product at high temperatures(above 150°C) may irritate respiratory passages.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s):

Chemical Name / Generic Name	CAS#	EC#	Wt%	EU Hazard class	EU Category code	USA OSHA PEL	ACGIH TLV	EU ILV
Synthetic silicone base oil	Confidential	Confidential	80-90	None	None	Not established	Not established	Not established
Lithium soap thickener	Confidential	Confidential	10-20	None	None	Not established	Not established	Not established
Silicon dioxide	7631-86-9	231-545-4	1-5	None	None	20mppcf,80(mg/m3) %Si O2	Not established	Not established
Graphite	7782-42-5	231-955-3	<1	None	None	15mppcf (TWA)	2mg/m ³	Not established

Carcinogen:

Chemical Name: None. **CAS#:** **Reference:**

No component of this product is listed as a human carcinogen or a potential carcinogen in IARC Monographs, U.S. NTP, OSHA regulation, and Annex VI of Regulation (EC) 1272/2008.

PBT substance and vPvB substance:

Chemical Name: None. **CAS#:** **Category:**

No component of this product is a PBT or vPvB substance under Regulation (EC)1907/2006.

SECTION 4 FIRST AID MEASURES

First Aid Measures:

Inhalation:	Remove exposed person to fresh air if adverse effects are observed.
Ingestion:	Do not make person vomit unless directed to do so by medical personnel.
Eye:	Flush immediately with water for at least 15 minutes. Get immediate medical attention.
Skin:	Wash with soap and water. Get medical attention if irritation develops.
Note to Physicians:	Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Extinguishing Media:

Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide to extinguish flames.



Unsuitable DO NOT use forcible water.

Extinguishing Media:

Special Fire Wear self-contained breathing apparatus and protective clothing if involved in a fire of other materials.

Fighting Procedures:

Unusual Fire and Not known.

Explosion Hazards:

Special Hazards Arising from the Substance or Mixture:

Hazardous Combustion CO, CO₂, SiO₂

Products:

Other Properties: None.

Advice for firefighters: None.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Eliminate all ignition sources. Evacuate surrounding areas.

Environmental Precautions: Should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

Methods and Material for Containment and Cleaning up: Sweep material and place in a disposal container. Dispose of via a licensed waste disposal contractor.

Reference to Other Sections: None.

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling: Put on appropriate personal protective equipment (see SECTION8). Workers should wash hands and face before eating, drinking and smoking. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for Safe Storage, Including Any Incompatibilities: Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.

Specific End Uses: Lubricating grease.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters: None.

Exposure Controls:

Engineering Controls: When mist is generated, the limited part should be ventilated.

Personal Protection Equipment(s):

Respiratory Protection:	<input type="checkbox"/> Required <input checked="" type="checkbox"/> Not Required	Not ordinarily required.
Eye/Face Protection:	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required	Wear safety glasses.
Skin Protection:	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required	To prevent contact, wear impervious clothing such as gloves, apron.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**Information on Basic Physical and Chemical Properties:**

Appearance:	Smooth, gray, semi-solid.
Odor:	Odorless.
pH:	No data available.
Boiling Point/Range(°C):	Not applicable.
Melting Point/Range(°C):	Not applicable.
Decomposition	Not applicable.
Temperature(°C):	
Flash Point(°C):	>200 (SETA)
Flammable (Explosive) Limits:	No data available.
Autoignition Temperature(°C):	No data available.
Flammability:	No data available.
Explosive Properties:	Not applicable.
Oxidizing Properties:	Not applicable.
Vapor Pressure:	No data available.
Vapor Density:	No data available.
Density/Specific Gravity:	Ca. 0.96 (25°C)
Water Solubility:	Negligible.
Fat Solubility:	No data available.
Partition Coefficient (n-Octanol/Water):	No data available.
Percent Volatile(%):	No data available.
Evaporation Rate:	Not applicable.
Viscosity(m Pa s):	Not applicable.
Other Information:	None.

SECTION 10 STABILITY AND REACTIVITY

Reactivity:	Not known.
Chemical Stability:	<input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable
Possibility of Hazardous Reactions:	<input type="checkbox"/> May Occur <input checked="" type="checkbox"/> Will Not Occur

Conditions to Avoid:	Heat, sparks, flames, and other ignition sources.
Incompatible Materials:	Acids. Oxidizing agents such as H ₂ O ₂ , permanganates and perchlorates. Halogens and halogenated compounds.
Hazardous Decomposition Products:	CO, CO ₂ , SiO ₂

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity:	Oral rats LD50: > 5000 mg/kg(Base oil) Dermal: No data available. Inhalation (vapor): No data available. Inhalation (mist): No data available.
Skin corrosion/irritation:	No data available.
Eye damage/ irritation:	No data available.
Sensitization-Respiratory:	No data available.
Sensitization-Skin:	No data available.
Germ cell mutagenicity:	No data available.
Carcinogenicity:	Base oil, Thickener, Additives: Not listed by IARC, OSHA, NTP, EU and ACGIH.
Reproductive toxicity:	No data available.
Specific target organ toxicity -Single exposure:	No data available.
Specific target organ toxicity -Repeated exposure:	No data available.
Aspiration hazard:	No data available.
Others:	Vapors(formaldehyde may release)from this product at high temperatures(above 150°C) may irritate respiratory passages. So, use adequate ventilation when this product is heated at approximately 150°C and above in the presence of air.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity:	
Aquatic:	No data available.
Terrestrial:	No data available.
Persistence/Degradability:	No data available.
Bioaccumulative potential:	No data available.
Mobility in soil:	No data available.
Results of PBT and vPvB assessment:	None.
Other Adverse Effects:	None.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

SECTION 14 TRANSPORT INFORMATION

UN#: None.

UN Proper Shipping Name: None.

Transport Hazard Class(es): None.

Packing Group: None.

Environmental Hazards:

Marine Pollutant: Yes **Chemical name (wt%)** _____
 No

Special Precautions for User: None.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: None.

SECTION 15 REGULATORY INFORMATION

EU Information:

Classification(EC1272/2008): See SECTION 2.

Hazardous Component(s): None.

Specific Provisions in Relation to Protection of Man or the Environment:

(EC)1005/2009: Not regulated.

(EU)649/2012: Not regulated.

(EC)1907/2006 Title VII: Not regulated.

(EC)1907/2006 Title VIII: Not regulated.

Others: None.

USA Information:**Information on the Label under OSHA HCS:**

Signal word: Not required.

Hazard statement(s): Not required.

Pictogram(s): Not required.

Precautionary statement(s): Not required.

Hazardous Component(s): Not required.

SARA Title III § 313:

Chemical Name: None.**Wt%:****California Proposition 65:**

Chemical Name: None.**Wt%:**

SECTION 16 OTHER INFORMATION

Other Information: None.**Date of Issue:** November 5, 2015**Revised Date:** Not applicable.

Literature Reference:

- U.S. Department of Labor, 29CFR Part 1910.
- U.S. Environmental Protection Agency, 40CFR Part 372.
- U.S. Consumer Product Safety Commission, 16CFR Part 1500.
- ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
- U.S. Department of Health and Human Services National Toxicology Program, Annual Report on Carcinogens.
- World Health Organization International Agency for Research on Cancer, IARC Monographs on the Evaluation on the Carcinogenic Risk of Chemicals to Humans.
- EU Regulation (EC) 1005/2009, (EU) 649/2012, (EC) 1907/2006, (EC) 1272/2008 and their amendments.

Abbreviations:**EU:** European Union.**CLP:** Regulation in the European Union through classification and labelling of chemicals.**OSHA HCS:** Occupational Safety and Health Act, Hazard Communication Standard (USA).**GHS:** Globally Harmonized System of Classification and Labelling of Chemicals.**OSHA PEL:** PEL (Permissible Exposure Limit) under Occupational Safety and Health Administration.**ACGIH TLV:** TLV (Threshold Limit Value) under American Conference of Governmental Industrial Hygienists.**EU ILV:** Indicative Limit Values for Occupational Exposure under EU Directive 91/322/EEC, 2000/39/EC and 2006/15/EC.**PBT:** Persistent, Bioaccumulative and Toxic**vPvB:** very Persistent and very Bioaccumulative.