SECTION 1 IDENTIFIC	ATION OF THE SUBSTANCE/MIXTURE AN	O OF THE COMPANY/UNDERTAKING		
Product Name:	PERMALUB BIN-6			
Use of the product:	Lubricating grease.			
Product Code:	None.			
Company Name:	NIPPON KOYU LTD.			
Address:	No385-14 SHIINOMORI SODEGAURA CHIBA 299-0247 JAPAN			
Telephone Number:	+81-438-60-2180			
SECTION2 HAZARDS	DENTIFICATION			
EU Information:				
Classification(67/548/EEC	Not classified.			
or 1999/45EC):				
Classification(EC1272/2008	;):			
Physical Hazards:	Flammable solids:	Not classified.		
	Pyrophoric solid:	Not classified.		
	Self-heating substances and mixtures:	Not classified.		
	Corrosive to metals:	Not classified.		
Health Hazards:	Acute toxicity(oral):	Not classified.		
	Acute toxicity(dermal):	Classification not possible.		
	Acute toxicity(inhalation: mist):	Classification not possible.		
	Skin corrosion/irritation:	Classification not possible.		
	Serious eye damage/eye irritation:	Classification not possible.		
	Sensitization-respiratory:	Classification not possible.		
	Sensitization-skin:	Classification not possible.		
	Germ cell mutagenicity:	Classification not possible.		
	Carcinogenicity:	Classification not possible.		
	Toxic to reproduction:	Classification not possible.		
	Specific target organ systemic toxicity following single exposure:	Classification not possible.		
	Specific target organ systemic toxicity following repeated exposure:	Classification not possible.		
	Aspiration toxicity:	Classification not possible.		
Environmental Hazards:	nazard:	Classification not possible.		
	Hazardous to the aquatic environment-Chronic hazard:	Classification not possible.		
	The hazards without the above mention are "Y	Not applicable" or "Classification not possible".		
Hazard Pictogram(s):	No pictogram.			
Signal Word(s):	No signal word.			
Hazard Statement(s):	No hazard statement.			
Precautionary Statement(s)	:			

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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.

Decomposition at flame temperatures may form toxic fluorine compounds. Avoid breathing

decomposition products.

SECTION3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s):

Chemical Name	CAS#	EC#	Wt%	EU	EU	USA	ACGIH	EU	DFG
/ Generic Name				Classification	Labelling	OSHA PEL	TLV	ILV	MAK
Synthetic	Confidential	Confidential	70-80	None	None	Not established	Not established	Not established	Not established
hydrocarbon base oil									
Lithium soap	Confidential	Confidential	5-15	None	None	Not established	Not established	Not established	Not established
thickener									
Additives(Poly tetra	Confidential	Confidential	10-20	None	None	Not established	Not established	Not established	Not established
fluoro ethylene, etc.)						(Except the	(Except the		
						below)	below)		
(Organic	68412-26-0	270-180-5	(1-5)	None	None	15 mg/m ³	10 mg/m ³	Not	Not
molybdenum.)						TWA:	TWA:	established	established
						Total dust	Insoluble		
						as Mo	compounds		
							, as Mo		
(Refined mineral base	Confidential	Confidential	(0.1-	None	None	5mg/m ³	5mg/m ³	Not	Not
oil)			0.5)			(TWA: as oil	(TWA: as oil	established	established
						mist)	mist)		

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.

Refined mineral base oil, by definition, is considered hazardous according to OSHA. Because it carries Threshold limit value(TLV) for mineral oil mist. Refined mineral base oil contain <3.0% DMSO extractable material.

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.

Fighting Procedures:

Unusual Fire and Not known.

Explosion Hazards:

Special Hazards Arising from the Substance or Mixture:

Hazardous Combustion CO, CO_2, HF, COF_2 .

Products: Decomposition at flame temperatures may form toxic fluorine compounds. Avoid breathing

decomposition products.

Other Properties: None.

Advice for firefighters: None

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective Eliminate all ignition sources. Evacuate surrounding areas.

equipment and emergency

procedures:

Environmental Precautions: Should be prevented from contaminating soil or from entering sewage and drainage systems and

bodies of water.

Methods and Material for Sweep material and place in a disposal container. Dispose of via a licensed waste disposal

Containment and Cleaning up: 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, Store in a cool, dry place with adequate ventilation. Keep away from open flames and high

Including Any temperatures.

Incompatibilities:

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Specific End Uses:	Lubricating grease.	
SECTION 8 EXPOSURE CO	NTROLS/PERSONAL PROTECTION	
Control Parameters:	Oil mist, mineral: ACGIH; TLV-TWA 5	5 mg/m ³ (as oil mist).
Exposure Controls:		
Engineering Controls:	When mist is generated, the limited part she	ould be ventilated.
Personal Protection Equipment(s	s):	
Respiratory Protection:	☐ Required ☐ Not Required	Not ordinarily required.
Eye/Face Protection:	☑ Required □ Not Required	Wear safety glasses.
Skin Protection:	lacktriangledown Required $lacktriangledown$ Not Required	To prevent contact, wear impervious clothing such
		as gloves, apron.
SECTION 9 PHYSICAL AND	CHEMICAL PROPERTIES	
Information on Basic Physical an	d Chemical Properties:	
Appearance:	Smooth, light yellow, semi-solid.	
Odor:	Bland odor.	
pH:	No data available.	
Boiling Point/Range($^{\circ}$ 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. 0.94 (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.	
VA AAABSSAVAAT		

SECTION 10 STABILITY AND REACTIVITY

Reactivity:	Not known.	
Chemical Stability:	☑ Stable □ Unstable	
Possibility of Hazardous	☐ May Occur ☑ Will Not Occur	
Reactions:		
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	CO,CO ₂ , HF,COF ₂	
Products:	Decomposition at flame temperatures may form toxic fluorine compounds.	
SECTION 11 TOXICOLOGIC	CAL INFORMATION	
Acute Toxicity:	Oral rats LD50: > 5000 mg/kg, Not classified.	
	Dermal: No data available.	
	Inhalation (vapor): No data available.	
	Inhalation (mist): No data available.	
Skin corrosion/irritation:	No data available.	
Serious eye damage/eye 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.	
Toxic to Reproduction:	No data available.	
Specific target organ systemic toxicity following single	No data available.	
exposure: Specific target organ systemic		
toxicity following repeated	No data available.	
exposure:		
Aspiration Toxicity:	No data available.	
	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	None.	

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assessment:	
Other Adverse Effects:	None.
SECTION 13 DISPOSAL CO	ONSIDERATIONS
SECTION IS DISTOSME CO	
Waste Treatment Methods:	Place contaminated materials in disposable containers and dispose of in a manner consistent with
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	None.
Annex II of MARPOL 73/78	
and the IBC Code:	
SECTION 15 REGULATOR	EV INFORMATION
EU Information:	THOMESTICAL
Classification(EC1272/2008):	See SECTION 2.
Hazardous Component(s):	None.
Classification(67/548/EEC	NOIC.
`	
or 1999/45EC):	
Symbol & Indication:	Not required.
R-Phrase:	Not required.
S-Phrase:	Not required.
Dangerous Component(s):	None.
Special Precautions under	
67/548/EEC Article 8 and 13	
or 1999/45/EC Annex V:	Not required.
Specific Provisions in Relation to	o Protection of Man or the Environment:
76/769/EEC:	Not regulated.
(EC)2037/2000:	Not regulated.

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(EC)304/2003: 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(s): Not required.

Hazard Warning: Not required.

Safety Advice: Not required.

Hazardous Component(s): Not required.

SARA Title III, 313:

Chemical Name: Zinc compounds. Wt%:1.6~1.8

California Proposition 65:

Chemical Name: None Wt%:

SECTION 16 OTHER INFORMATION

Other Information: None.

Date of Issue: March 5, 2012

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.
- Safe Drinking Water and Toxic Enforcement Act of 1986.
- Title III of the Superfund Amendments and Reauthorization Act of 1986.
- 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.
- DFG, List of MAK and BAT Values.
- EU Directive 76/769/EEC, 67/548/EEC, 88/379/EEC, 1999/45/EC and their amendments.
- EU Regulation (EC)3093/94, (EEC)2455/92,(EC)1907/2006,(EC)1272/2008 and their amendments.

Abbreviations:

EU: European Union.

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.

 $DFG\ MAK:\ MAK\ (Maximale\ Arbeitsplatz-Konzentration)\ under\ Deutsche\ Forschungsgemeinschaft.$

PBT:Persistent,Bioaccumulative and Toxic.

vPvB:very Persistent and very Bioaccumulative.