

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

Product Name:	LOGENEST LAMBDA NK-7420
Use of the product:	Lubricating solution.
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 IDENTIFICATION**EU Information:**

Classification(67/548/EEC or 1999/45EC): Not classified.

Classification(EC1272/2008):

Physical Hazards:	Flammable liquids:	Not classified.
	Pyrophoric liquids:	Not classified.
	Self-heating substances and mixtures:	Classification not possible.
Health Hazards:	Corrosive to metals:	Not classified.
	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.
	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:	Hazardous to the aquatic environment-Acute hazard:
Hazardous to the aquatic environment-Chronic hazard:		Classification not possible.
The hazards without the above mention are "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):

Prevention: Not required.**Response:** Not required.**Storage:** Not required.**Disposal:** Not required.**Other Hazards:** Thermal decomposition may produce toxic products including perfluoroisobutylene and hydrogen fluoride.**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS****Ingredient(s):**

Chemical Name / Generic Name	CAS#	EC#	Wt%	EU Classification	EU Labelling	USA OSHA PEL	ACGIH TLV	EU ILV	DFG MAK
Solvent (Hydro Fluoro Ether)	Confidential	Confidential	>90	None	None	Not established	Not established	Not established	Not established
Perfluorinated polyethers base oil	Confidential	Confidential	<5	None	None	Not established	Not established	Not established	Not established
Poly tetra fluoro ethylene thickener and calcium soap thickener	Confidential	Confidential	<2	None	None	Not established	Not established	Not established	Not established
Additive	Confidential	Confidential	<0.1	None	None	Not established	Not established	Not established	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:** Material will not burn.**Unsuitable** Not applicable.**Extinguishing Media:**

Special Fire	Exposure to extreme heat can give rise to thermal decomposition.
Fighting Procedures:	Wear self-contained breathing apparatus and protective clothing if involved in a fire of other materials.
Unusual Fire and Explosion Hazards:	No unusual fire or explosion hazards are anticipated. No unusual effects are anticipated during fire extinguishing operations. Avoid breathing the products and substances that may result from the thermal decomposition of the product or the other substances in the fire zone.

Special Hazards Arising from the Substance or Mixture:

Hazardous Combustion Products:	CO, CO ₂ , HF, COF ₂ PFIB (Perfluoroisobutylene)
Other Properties:	None.
Advice for firefighters:	None.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Be careful, contaminated surface by spilt product is slippery. 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. Do not handle near the open flame. Avoid heating above 150°C. 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 solution.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters:	None.
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Exposure Controls:**Engineering Controls:** When mist is generated, the limited part should be ventilated.**Personal Protection Equipment(s):****Respiratory Protection:** Required Not Required Not ordinarily required.**Eye/Face Protection:** Required Not Required Wear safety glasses.**Skin Protection:** Required 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:** Light milky-white, liquid**Odor:** Bland odor**pH:** Not applicable**Boiling Point/Range(°C):** 61 (Solvent)**Melting Point/Range(°C):** -135 (Solvent)**Decomposition** Not applicable**Temperature(°C):** **Flash Point(°C):** Not applicable**Flammable (Explosive) Limits:** No data available**Autoignition Temperature(°C):** No data available**Flammability:** No data available**Explosive Properties:** No data available**Oxidizing Properties:** Not applicable**Vapor Pressure:** 0.028 MPa [25°C] (Solvent)**Vapor Density:** c.a. 8.6 [Ref Std. AIR=1] (Solvent)**Density/Specific Gravity:** c.a. 1.52 (25°C)**Water Solubility:** No data available**Fat Solubility:** No data available**Partition Coefficient
(n-Octanol/Water):** No data available**Percent Volatile(%):** No data available**Evaporation Rate:** No data available**Viscosity:** No data available**Other Information:** None.**SECTION 10 STABILITY AND REACTIVITY****Reactivity:** Not known.**Chemical Stability:** Stable Unstable**Possibility of Hazardous** May Occur Will Not Occur

Reactions:	_____
Conditions to Avoid:	Avoid heating the product above 150°C. Avoid contact with flames.
Incompatible Materials:	Acids. Bases. Oxidizing agents such as H ₂ O ₂ , permanganates and perchlorates. Halogens and halogenated compounds.
Hazardous Decomposition	CO, CO ₂ , HF, COF ₂ , PFIB (Perfluoroisobutylene)
Products:	_____

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity:	Oral: No data available. 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:	Solvent, 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 exposure:	No data available.
Specific target organ systemic toxicity following repeated exposure:	No data available.
Aspiration Toxicity:	No data available.

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:	Data of solvent: Ozone depletion potential: 0 Global Warming Potential.(GWP): 320 (100-yr ITH, IPCC2001 method)

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.

Classification(67/548/EEC 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 Protection of Man or the Environment:

76/769/EEC: Not regulated.

(EC)2037/2000: Not regulated.

(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: None. **Wt%:**

California Proposition 65:

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

SECTION 16 OTHER INFORMATION

Other Information: None.

Date of Issue: September 21, 2011

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.