SAFETY DATA SHEET

PRODUCT NAME Viscosity Liquid 500

Data of issue 19/1/2011

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1. Identification of the substance or mixture and the supplier

Product name	Viscosity Liquid 500
SDS No.	GHS-0037E
Name of supplier	Kyoto Electronics Manufacturing Co., Ltd.
Address	68 Ninodan-cho, Shinden, Kisshoin, Minami-ku, Kyoto, Japan
Division	Quality Assurance Department
Phone	+81-75-691-4121
Fax	+81-75-691-4127
Emergency phone	+81-75-691-4125

Recommended uses and restrictions on use

Recommended use	For analysis
Restrictions on use	When using for purposes other than those recommended, consult a specialist.

2. Hazard identification

GHS classification	Not a hazardous substance or mixture according to the Globally Harmonized System (GHS).
GHS label elements	Not a hazardous substance or mixture according to the Globally Harmonized System (GHS).

Other hazards which do not result in classification

Important symptoms and outlines of the emergency assumed	None known.

3. Composition/Information on ingredients

substance / mixture mixture

Components

No.	Chemical name	CAS No.	Concentration (% w/w)	ENCS / ISHL number
1	Base oil (Cannot be disclosed due to trade secret.)	8042-47-5 64742-57-0	100	–

If product contained highly refined mineral oil, it contains <3 % DMSO-extract, according to IP346.

4. First-aid measures

General advice	Do not leave the victim unattended.
If inhaled	Remove victim to fresh air. Cover the body with a blanket etc. to keep warm and rest, and seek medical attention immediately.
In case of skin contact	Wash the affected area with soap and water.
In case of eye contact	Flush eyes with clean water for at least 15 minutes and then seek medical attention.
If swallowed	Do not induce vomiting, and seek medical attention immediately. If the inside of the mouth is contaminated, rinse thoroughly with water.
Most important symptoms and effects, both acute and delayed	If swallowed, it may cause diarrhea and vomiting. If it comes into contact with eyes, it may cause irritation. If it comes into contact with skin, it may cause irritation. Inhaling mist may cause nausea.
Notes to physician	Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media	Mist-type reinforced liquid, foam, powder or carbon dioxide extinguishing agents are effective. For early-stage fires, use powder or carbon dioxide extinguishers. For large-scale fires, use extinguishing agents such as foam that are effective at cutting off the oxygen/air supply to the fire.
Unsuitable extinguishing media	High volume water jet
Specific hazards during fire fighting	No data available.
Specific extinguishing methods	Cut off any sources that might further fuel the fire. Spray water on the surrounding area (covering tools and equipment if necessary and safe to do so) to cool everything down. Prevent anyone not immediately responsible for the work or the emergency response from entering the location of the fire.
Special protective equipment for fire-fighters	Extinguishing work should be done from the upwind/windward position (stand in a place opposite to the direction of toxic fumes and smoke) while wearing PPE.

6. Accidental release measures

Personal precautions,	Prepare fire extinguishing equipment.

protective equipment and emergency procedures	Wear fire protection gear when working.
Environmental precautions	Be careful not to discharge into rivers, sewers, etc. When using chemicals at sea, they must comply with the technical standards set out in ordinances of the Ministry of Land, Infrastructure, Transport and Tourism and the Ministry of the Environment.
Methods and materials for containment and cleaning up	Immediately remove all nearby sources of ignition. If the amount is small, absorb it with sand or rags, etc., and then wipe it up completely with rags, etc. If the amount is large, string up ropes around the area below the spill to prevent people from entering. Stop the flow of the leaked liquid with sand, etc., guide it to a safe place, and collect as much as possible in empty containers, etc. If at sea, deploy oil fences to prevent the liquid from spreading, and soak up the liquid with absorbent mats, etc. (however, this does not apply if the density is 1 or higher). If chemicals are used, they must comply with the technical standards set out in ordinances of the Ministry of Land, Infrastructure, Transport and Tourism and the Ministry of the Environment.

7. Handling and storage

Handling

Advice on protection against fire and explosion	Steam generated from petroleum products is heavier than air and tends to stagnate, so care must be taken with ventilation and fire.
Advice on safe handling	Handle at room temperature, taking care to avoid contamination with moisture or foreign matter.
Avoidance of contact	Halogens, strong acids, alkalis, oxidizing substances
Hygiene measures	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

Storage

Conditions for safe storage	Store in a well-ventilated place away from direct sunlight. After use, seal tightly to prevent contamination by dust, moisture, etc. Store in a locked container. Avoid heat, sparks, flames, and static electricity buildup.
Further information on storage stability	Do not pressurize empty containers as they may burst. Do not weld, heat, drill or cut containers as residues may ignite with explosion.

8. Exposure controls/Personal protection

Threshold limit value and permissible exposure limits for each component in the work environment

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Reference concentration / Permissible concentration	Basis
(as oil mist, mineral)		TWA	3 mg/m^3 5 mg/m^3	JSOH ACGIH

Personal protective equipment

Respiratory protection	Suitable respiratory equipment
Hand protection material	Protective gloves
Eye protection	Safety glasses
Skin and body protection	Protective suit

9. Physical and chemical properties

Physical state	Liquid.
Color	Transparent
Odor	Slight odor
Melting point / Freezing point	No data available
Initial boiling point and boiling range	No data available
Flammability (liquids)	No data available
Lower explosion limit and upper explosion limit / flammability limit	
Upper explosion limit / Upper flammability limit	1 vol%
Lower explosion limit / Lower flammability limit	7 vol%
Flash point	262 ℃
Decomposition temperature	No data available
pH	No data available
Autoignition temperature	No data available
Self-Accelerating decomposition temperature (SADT)	No data available
Viscosity	
Viscosity, kinematic	502 mm^2/s (20 ℃)
Solubility(ies)	
Water solubility	Insoluble
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Vapor pressure	No data available

Density and / or relative density Relative density	0.87 g/cm^3 (15 ℃)
Relative vapor density	No data available
Particle characteristics Particle size	No data available

10. Stability and reactivity

Reactivity	Avoid contact with strong oxidizing agents.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No data available
Conditions to avoid	Avoid contact with halogens, strong acids, alkalis, and oxidizing substances.
Incompatible materials	No data available

11. Toxicological information

Acute toxicity	
Acute oral toxicity	LD50(Rat) >5,000 mg/kg
Acute dermal toxicity	LD50(Rabbit) >5,000 mg/kg
Acute inhalation toxicity	LC50(Rat) ＞5 mg/L
Skin corrosion/irritation	Not expected to be irritating to the skin. However, continued or repeated contact may cause mild skin irritation.
Serious eye damage/eye irritation	Not expected to cause eye irritation, however may cause mild eye irritation.
Respiratory or skin sensitization	
Skin sensitization	Not data available
Respiratory sensitization	Not data available
Germ cell mutagenicity	Not data available
Carcinogenicity	Not classified based on available information.
Reproductive toxicity	Not classified based on available information.
STOT-single exposure	Not classified based on available information.
STOT-repeated exposure	Not classified based on available information.
Aspiration toxicity	Carbohydrates with a kinematic viscosity of 20.5 mm^2/s or less at 40°C are classified as Category 1.
Remarks	No data available

12. Ecological information

Ecotoxicity	LC/LL/EL/IL50 >100 mg/L
Persistence and	This material is not expected to be immediately biodegradable, but is expected to

degradability	eventually biodegrade.
Bioaccumulation	Although not expected to bioaccumulate, it may contain components that may bioaccumulate.
Mobility in soil	The log K_{OC} of similar base oils is estimated to be 3 or higher, and it is unlikely that oil leaking on the surface would flow into groundwater due to adsorption by the soil.
Hazardous to the ozone layer	Not applicable
Other adverse effects	Cause fouling of aquatic organisms.

13. Disposal considerations

Waste from residues	Businesses must dispose of industrial waste themselves, or entrust it to an industrial waste disposal company licensed by the prefectural governor, or to a local government if the local government is handling such disposal. Disposal must follow the relevant laws and regulations and the standards of the local government. Dumping prohibited When disposing of waste in a landfill, it must be incinerated in advance using incineration equipment, and it must be confirmed that the resulting cinders are below the standards set out in the Enforcement Order of the Waste Disposal and Public Cleansing Law. When incinerating waste, it must be done in a safe place, in a manner that will not cause harm or damage to others due to incineration or explosion, and a guard must be present.
Contaminated packaging	Clean and recycle the container or dispose of it appropriately in accordance with the relevant laws and regulations and local government standards. When disposing of the empty container, remove all contents.

14. Transport information

International Regulations

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation	Please refer to the law and local regulations, etc. in each country
Special precautions for user	Not applicable

15. Regulatory information

16. Other information

Citations/References

NITE-Gmiccs (National Institute of Technology and Evaluation)

NITE-CHRIP (National Institute of Technology and Evaluation)

Workplace Safety Site (Ministry of Health, Labor and Welfare)

SDS from various upstream manufacturers

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