

# SAFETY DATA SHEET

## 1. Chemical product and company identification

**Product name** Panlite® LN-3000RM  
**SDS Number** LN3000RM-JpE  
**Version number** 03  
**Issue date** 04-01-2013  
**Revision date** 04-01-2017  
**Company name** TEIJIN Limited.  
**Address** 2-1, Kasumigaseki 3-chome, Chiyoda-ku, Tokyo 100-8585, Japan  
**Division** Environment Quality Assurance Department,  
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### Recommended use of the chemical and restrictions on use

**Intended use** Molding material for industry use

## 2. Hazards identification

### GHS-classification

**Physical hazards** Not classified  
**Health hazards** Carcinogenicity Category 2  
**Environmental hazards** Not classified

\*Hazards not stated here are "Not applicable" or "Classification not possible".

### GHS label elements

#### Symbols



**Signal words** Warning  
**Hazard statement** Suspected of causing cancer.

### Precautionary statement

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.  
**Response** IF exposed or concerned: Get medical advice/attention.  
**Storage** Store locked up.  
**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**National/local information** See section 15 for regulatory information.

## 3. Composition/information on ingredients

**Substance or Mixture** Mixture

Components	CAS #	Gazette notification		Concentration (%)
		ENCS no.	ISHL no.	
Polycarbonate resin	25971-63-5	(7)-738	(7)-738	70 – 80
Titanium dioxide	13463-67-7	(1)-558	(1)-558	1 – 10
Triphenyl phosphate	115-86-6	(3)-2522	(3)-2522	8
Modifier	Proprietary			=< 10

**Chemical formula:** (C<sub>15</sub>H<sub>16</sub>O<sub>2</sub>.CCl<sub>2</sub>O)<sub>x</sub> (25971-63-5), O<sub>2</sub>-Ti (13463-67-7), C<sub>18</sub>-H<sub>15</sub>-O<sub>4</sub>-P (115-86-6)

### Composition comments

Triphenyl phosphate is classified as GHS hazardous to the aquatic environment (acute and chronic) category 1. However, because the test result on a similar product showed low water extractivity of triphenyl phosphate (OECD GUIDELINE FOR TESTING OF CHEMICALS 120), the bioavailability of triphenyl phosphate in this product is expected to be low and the environmental hazard of the product is considered to be low.

## 4. First aid measures

<b>If inhaled</b>	In case of inhalation of dusts or fumes from heated product: Move injured person into fresh air and keep person calm under observation. Get medical attention if any discomfort continues.
<b>If on skin</b>	Rinse with water. Get medical attention promptly if symptoms persist or occur after washing. If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn.
<b>If in eyes</b>	Dust in the eyes: Do not rub eyes. Flush thoroughly with water. If irritation occurs, get medical assistance.
<b>If swallowed</b>	Rinse mouth thoroughly. Large quantities: Get medical attention if symptoms occur.
<b>Expected acute and delayed Symptoms</b>	None.
<b>Protection of first-aid responders</b>	First aid personnel must be aware of own risk during rescue.
<b>Notes to physician</b>	Treat symptomatically.

## 5. Fire-fighting measures

<b>Extinguishing media</b>	Extinguish with foam, carbon dioxide, dry powder or water fog.
<b>Extinguishing media to avoid</b>	None.
<b>Specific hazards</b>	During fire, gases hazardous to health may be formed.
<b>Special fire fighting procedures</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>Protection of fire-fighters</b>	Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency measures</b>	Avoid inhalation of dust and contact with skin and eyes. See Section 8 of the SDS for Personal Protective Equipment.
<b>Environmental precautions</b>	Do not allow to enter drains, sewers or watercourses.
<b>Clean-up methods and materials and containment measures</b>	Collect and dispose of spillage as indicated in Section 13 of the SDS.

## 7. Handling and storage

<b>Handling</b>	
<b>Technical measures</b>	Use explosion-proof electrical equipment if airborne dust levels are high.
<b>Local and general ventilation</b>	Provide adequate ventilation.
<b>Precautions</b>	Use work methods which minimize dust production. Wear appropriate personal protective equipment.
<b>Safe handling advice</b>	Avoid inhalation of dust and contact with skin and eyes. Avoid vapors from heated materials to prevent exposure to potentially toxic/irritating fumes.
<b>Storage</b>	
<b>Technical measures</b>	Avoid dust formation.
<b>Suitable storage conditions</b>	Store in closed original container in a dry place.
<b>Safe packaging materials</b>	Keep in original container.

## 8. Exposure controls/personal protection

### Occupational exposure limits

Japan. OELs - JSOH. (Japan Society of Occupational Health: Advisory Opinion on Permissible [Exposure] Limits)

Components	Type	Value	Form
Titanium dioxide (13463-67-7)	TWA	4 mg/m <sup>3</sup>	Total dust.
		1 mg/m <sup>3</sup>	Respirable dust.

### US. ACGIH Threshold Limit Values

Components	Type	Value
Titanium dioxide (13463-67-7)	TWA	10 mg/m <sup>3</sup>
Triphenyl phosphate (CAS 115-86-6)	TWA	3 mg/m <sup>3</sup>

**Engineering measures** Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk

of inhalation of dust. Provide easy access to water supply and eye wash facilities.

## Personal protective equipment

### Respiratory protection

Wear respirator if there is dust formation. When the product is heated, use suitable respiratory equipment with gas filter for organic gas.

### Hand protection

Wear protective gloves. When material is heated, wear gloves to protect against thermal burns.

### Eye protection

Use tight fitting goggles if dust is generated. If contact with hot material may occur, safety glasses and face shield are recommended.

### Skin and body protection

Wear suitable protective clothing.

## Hygiene measures

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

#### Physical state

Solid.

#### Form

Pellets.

#### Color

Natural.

### Odor

None.

### pH

Not applicable.

### Melting point/Freezing point

> 464 °F (> 240 °C)

### Boiling point, initial boiling point, and boiling range

Not applicable.

### Flash point

> 971.6 °F (> 522 °C)

### Auto-ignition temperature

> 1022 °F (> 550 °C)

### Combustion characteristics (solid, gas)

Not available.

### Flammability limit - lower (%)

Not available.

### Flammability limit - upper (%)

Not available.

### Vapor pressure

Not applicable.

### Vapor density

Not applicable.

### Specific gravity

1.29

### Solubility

Insoluble in water

### Partition coefficient (n-octanol/water)

Not available.

### Decomposition temperature

Not available.

## 10. Stability and reactivity

### Stability

Stable under normal temperature conditions.

### Possibility of hazardous reactions

Will not occur.

### Conditions to avoid

None known.

### Incompatible materials

No data available.

### Hazardous decomposition products

During combustion: Carbon monoxide. Carbon Dioxide. Phosphoric acid.

## 11. Toxicological information

### Acute toxicity

May cause discomfort if swallowed.

### Components

### Test Results

Triphenyl phosphate (CAS 115-86-6)

Acute Dermal LD50 Rabbit: > 7.9 g/kg

Acute Oral LD50 Guinea pig: > 4000 mg/kg

Acute Oral LD50 Rat: 3500 mg/kg

### Skin corrosion/irritation

Dust may irritate skin.

### Serious eye damage/eye irritation

Dust in the eyes will cause irritation. May cause redness and pain.

### Respiratory sensitizer

None known.

### Skin sensitizer

None known.

<b>Germ cell mutagenicity</b>	None known.
<b>Carcinogenicity</b>	Suspected of causing cancer. Inhalation of airborne titanium dioxide dust may cause cancer.
<b>ACGIH Carcinogens</b>	
Titanium dioxide (CAS 13463-67-7)	A4 Not classifiable as a human carcinogen.
Triphenyl phosphate (CAS 115-86-6)	A4 Not classifiable as a human carcinogen.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	
Titanium dioxide (CAS 13463-67-7)	2B Possible carcinogen.
<b>Toxic to reproduction</b>	None known.
<b>Specific target organ toxicity - single exposure</b>	None known.
<b>Specific target organ toxicity - repeated exposure</b>	None known.

## 12. Ecological information

### Ecotoxicological data

Components		Species	Test Results
Triphenyl phosphate (CAS 115-86-6)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.86 - 1.2 mg/l, 48 Hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.3 mg/l, 96 Hours
		Fathead minnow (Pimephales promelas)	0.87 mg/l, 96 Hours

**Ecotoxicity** Triphenyl phosphate is classified as GHS hazardous to the aquatic environment (acute and chronic) category 1. However, because the test result on a similar product showed low water extractivity of triphenyl phosphate (OECD GUIDELINE FOR TESTING OF CHEMICALS 120), the bioavailability of triphenyl phosphate in this product is expected to be low and the environmental hazard of the product is considered to be low.

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Persistence/degradability** None known.

### Bioaccumulation

#### Bioaccumulative potential

**Octanol/water partition coefficient log Kow** Triphenyl phosphate 4.59

**Mobility in soil** The product is insoluble in water and will sediment in water systems.

**Other hazardous effects** None known.

## 13. Disposal considerations

**Residual waste** Dispose of waste at a facility with special permission to dispose industrial wastes. Waste should be accompanied by a manifest for the industrial waste. Dispose of in accordance with local regulations. Do not discharge into rivers, lakes, mountains, etc. because the product may affect the environment.

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

**International regulations** Not regulated as dangerous under UN transport regulation.

**IATA** Not regulated as dangerous goods.

**IMDG** Not regulated as dangerous goods.

## 15. Regulatory information

### Industrial Safety and Health Act

**Specified substances regulation** Not regulated.

**Organic solvents regulation** Not regulated.

**Notifiable substances** Titanium dioxide 1 – 10%

Triphenylphosphate 8.0 %

Labeling substances	Not regulated.
Poisonous and Deleterious Substances Control Act	Not regulated.
Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	
Class I specified chemical substances	Not regulated.
Class II specified chemical substances	Not regulated.
Monitoring chemical substances	Not regulated.
Law concerning Pollutant Release and Transfer Register	
Specified class 1 substances (substance name, ordinance number and content)	Not regulated.
Class 1 substances (substance name, ordinance number and content)	Triphenylphosphate      Ordinance No. 461      8.0 %
Class 2 substances (substance name, ordinance number and content)	Not regulated.
Fire Service Act	Not dangerous goods under Fire Service Law
Ship Safety Law, Dangerous Goods Marine Transport and Storage Rule	
	Not regulated.
Air Law, Enforcement Rule	Not regulated.
Explosives Control Act	Not regulated.
High Pressure Gas Safety Act	Not regulated.
Act on Prevention of Marine Pollution and Maritime Disaster	
	Not regulated.
Water Pollution Control Act	PHOSPHORUS

## 16. Other information

The information about colorant is not contained in this SDS.

This information is provided without warranty. The information is believed to be correct. The precautions in this SDS are intended for normal use. Please take safety measures appropriate to the use and the application when handling the product in a special way. This information should be used to make an independent determination of the methods to safeguard workers and the environment.