

SAFETY DATA SHEET

1. Chemical product and company identification

Product name Panlite® EN-8515N
SDS Number EN8515N-JpE
Version number 03
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Company name TEIJIN Limited.
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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 Skin sensitization Category 1
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 May cause an allergic skin reaction. May cause an allergic skin reaction.

Precautionary statement

Prevention Avoid breathing dust/fume. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Response IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. 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		60 – 70
Nickel	7440-02-0	Exempted	Exempted		7.0
Carbon fiber	7440-44-0	Exempted	Exempted		=< 15
Wollastonite	13983-17-0	Exempted	Exempted		=< 5
Phosphorous flame retardant	Proprietary	Proprietary	Proprietary		=< 15
Modifier	Proprietary	Proprietary	Proprietary		=< 10
Chemical formula:		(C15H16O2.CCl2O)x (25971-63-5), Ni (7440-02-0), C (7440-44-0), Ca.H2-O3-Si			

(13983-17-0),

4. First aid measures

If inhaled	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.
If on skin	Rinse with water. In case of eczema or other skin disorders: Seek medical attention and take along this SDS. 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.
If in eyes	Dust in the eyes: Do not rub eyes. Flush thoroughly with water. If irritation occurs, get medical assistance.
If swallowed	Rinse mouth thoroughly. Get medical attention if any discomfort continues.
Expected acute and delayed Symptoms	May cause eczema-like skin disorders (dermatitis). Chronic inhalation of fumes or dust may cause irritation or other respiratory conditions (e.g., bronchitis).
Protection of first-aid responders	First aid personnel must be aware of own risk during rescue.
Notes to physician	Symptoms may be delayed.

5. Fire-fighting measures

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

6. Accidental release measures

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

7. Handling and storage

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

8. Exposure controls/personal protection

Occupational exposure limits

Japan. OELs - ISHL. (Workplace Environment Assessment Standards)

Components	Type	Value
Nickel (7440-02-0)	TLV	0.1 mg/m3

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

Components	Type	Value	Form
Carbon fiber (7440-44-0)	TWA	0.5 mg/m3	Respirable dust.
		2 mg/m3	Total dust.
Nickel (7440-02-0)	TWA	1 mg/m3	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Carbon fiber (7440-44-0)	TWA	2 mg/m3	Respirable fraction.
Nickel (7440-02-0)	TWA	1.5 mg/m3	Inhalable fraction.
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	1.3
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. Oxides of phosphorus.

11. Toxicological information

Acute toxicity	May cause discomfort if swallowed.
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Components	Test Results
Carbon fiber (7440-44-0)	Acute Oral LD50 Rat: > 10000 mg/kg
Phosphorous flame retardant (Proprietary)	Acute Dermal LD50 Rat: > 2000 mg/kg

Acute Oral LD50 Rat: > 2000 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 Not classified.
Japan Society for Occupational Health: Respiratory sensitizer
Nickel (CAS 7440-02-0) 2 Probable respiratory sensitizer.
Skin sensitizer May cause allergic skin reaction.
Japan Society for Occupational Health: Skin sensitizer
Nickel (CAS 7440-02-0) 1 Known skin sensitizer.
Germ cell mutagenicity None known.
Carcinogenicity Suspected of causing cancer.

ACGIH Carcinogens

Nickel (CAS 7440-02-0) A5 Not suspected as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Nickel (CAS 7440-02-0) 2B Possibly carcinogenic to humans.
Wollastonite (CAS 13983-17-0) 3 Not classifiable as to carcinogenicity to humans.

Japan Society for Occupational Health: Carcinogen

Nickel (CAS 7440-02-0) 2B Probable carcinogen. Less evidence exists.

NTP Report on Carcinogens

Nickel (CAS 7440-02-0)

Toxic to reproduction None known.
Specific target organ toxicity - single exposure None known.
Specific target organ toxicity - repeated exposure The product contains a substance that may cause damage to organs through prolonged or repeated exposure. Chronic inhalation of fumes or dust may cause irritation or other respiratory conditions (e.g., bronchitis).

12. Ecological information

Ecotoxicity 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 None known.
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 NICKEL AND NICKEL COMPOUNDS 7.0 %
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)

NICKEL	Ordinance No. 308	7.0 %
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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.

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.