Issue date: Sep/30/2022

Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Product name: Panlite®Sheet PC-4980

SDS No:PC4980_JpE-1

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the product: Industrial use.

Details of the supplier of the safety data sheet

Manufacturer/Supplier: TEIJIN Limited.

Address: 2-1, Kasumigaseki 3-chome, Chiyoda-ku, Tokyo 100-8585, Japan

Division: Environment Quality Assurance Department,

Resin & Plastic Processing Business Unit

Telephone number: +81 3-3506-4717

FAX: +81 3-3580-6680

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

(Note) GHS classification without description: Not classified/Classification not possible

Label elements

No GHS label element

No Signal word

3. Composition/information on ingredients

Mixture/Substance selection:

Mixture

Chemical identification: Article

Ingredient name	CAS No.	Content (%)	Chemicals No, Japan
Polycarbonate resin	25971-63-5	80 - 90	7-738
Titanium dioxide	13463-67-7	= < 10	1-558
Talc	14807-96-6	= < 10	1-468
Modifier	Proprietary	= < 10	Proprietary

Note : The figures shown above are not the specifications of the product.

Components contributing to the hazard

Industrial Safety and Health Act, Japan Report required substances

Titanium dioxide (Since this product is an article, it is not regulated as Report required substances.)

4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical advice/attention if you feel unwell.

IF exposed or concerned: Get medical advice/attention.

IF exposed or concerned: Call a POISON CENTER/doctor/physician.

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.

In case of inhalation of dusts from machining operation 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 (or hair)

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.

IF IN EYES

Particles from machining in the eyes: Do not rub eyes. Flush thoroughly with water. If irritation occurs, get medical assistance.

IF SWALLOWED

In case of ingestion of particles from machining: Rinse mouth thoroughly. Get medical attention if any discomfort continues.

Most important symptoms and effects, both acute and delayed

(Symptoms when inhalation or ingestion)

Talc may have effects on the lungs, resulting in talc pneumoconiosis.

Protective measures for first aid

First aid personnel must be aware of own risk during rescue.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

Specific hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Use standard firefighting procedures and consider the hazards of other involved materials.

Special protective equipment and precautions for fire-fighters

Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Avoid inhalation of dust. See Section 8 of the SDS for Personal Protective Equipment.

Environmental precautions

Do not allow to enter drains, sewers or watercourses.

Methods and materials for containment and cleaning up

Collect and dispose of spillage as indicated in Section 13 of the SDS.

Preventive measures for secondary accident

Avoid release to the environment.

7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Protective measures against fire and explosion)

Use explosion proof electrical equipment if airborne dust levels are high.

Use explosion proof electrical equipment to protect against dust explosion if airborne dust is generated by machining operation.

(Exhaust/ventilator)

Provide adequate ventilation.

Provide adequate local exhaust ventilation to prevent inhalation of gas generated by melting under thermal processing.

(Safety treatments)

Use work methods which minimize dust production. Wear appropriate personal protective equipment.

Do not touch high temperature molten resins to protect against thermal burns. Scattered wastes make the floor slippery and may cause a fall. Clean up the floor swiftly. Wear appropriate personal protective equipment.

Safety Measures

Do not handle until all safety precautions have been read and understood.

Use personal protective equipment as required.

Avoid inhalation of dust. Avoid prolonged or repeated contact with skin.

Avoid vapors from heated materials to prevent exposure to potentially toxic/irritating fumes.

Avoid inhalation of dusts from machining operation. Avoid vapors from heated materials to prevent exposure to potentially toxic/irritating fumes. Cut surface s and edges may be sharp.

Make sure to wear protective gloves and protective goggles to protect against cuts.

Any incompatibilities data is not available.

Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

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.

Storage

Conditions for safe storage

Store away from fire, heat sources and direct sunlight to avoid deformation of the product(sheet).

(Incompatible storage condition)

Lay the product (sheet) horizontally, but not vertically to avoid deformation of the sheet.

Store away from paints and solvents.

Container and packaging materials for safe handling

Store in its original state.

8. Exposure controls/personal protection

Control parameters

Control value in MHLW is not available.

Adopted value

(Titanium dioxide)

JSOH(Class 2 dust) (respirable dust) 1mg/m3; (total dust) 4mg/m3

(Talc)
JSOH(Class 1 dust) (respirable dust) 0.5mg/m3; (total dust) 2mg/m3
(Titanium dioxide)
ACGIH(2021) TWA: 2.5mg/m3(R) (LRT irr; pneumoconiosis)
(Talc)
ACGIH(2010) TWA: 2mg/m3(E,R) (Pulm fibrosis; pulm func) (Containing no asbestos fibers)

Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.
Provide adequate ventilation.
Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of dust.

Individual protection measures

Respiratory protection

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

Hand protection

For prolonged or repeated skin contact use suitable protective gloves.
When material is heated, wear gloves to protect against thermal burns.

Eye protection

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

Skin and body protection

Wear suitable protective clothing.
Wear long sleeved clothing and protective gloves during thermal processing and machining operation to protect against thermal burns and cuts.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Solid. Sheet, Film.
Color: Natural
Odor: None
Odor threshold data is not available.
Melting point/Freezing point: > 240℃
Boiling point or initial boiling point data is not available.
Boiling range data is not available.
Flammability (gases, liquids and solids) data is not available.
Lower and upper explosion limit/flammability limit data is not available.
Flash point: > 522℃
Auto-ignition temperature: > 550℃
Decomposition temperature data is not available.
pH: Not applicable
Kinematic viscosity data is not available.
Solubility:

Solubility in water: Insoluble
Solubility in solvent data is not available.

n-Octanol/water partition coefficient data is not available.
Vapor pressure: Not applicable
Vapor density: Not applicable
Density and/or relative density(Specific gravity):1.3 g/cm3
Relative vapor density (Air=1) data is not available.

Other information
Evaporation rate data is not available.

10. Stability and Reactivity

Reactivity
Runaway polymerization will not occur.
Chemical stability
Stable under atmospheric pressure at room temperature.
Possibility of hazardous reactions
Will not occur
Conditions to avoid
Conditions to avoid data is not available.
Incompatible materials
Incompatible materials data is not available.
Hazardous decomposition products
During combustion: Carbon monoxide. Carbon Dioxide.

11. Toxicological Information

Information on toxicological effects
Acute toxicity
May cause discomfort if swallowed.
Acute toxicity (Oral)
[GHS Cat. Japan, base data]
(Titanium dioxide)
rat LD50 >5000mg/kg (SIDS, 2015)
[Company proprietary data]
(Titanium dioxide)
rat LD50 >5000mg/kg (SIDS, 2015)
Acute toxicity (Dermal)
[GHS Cat. Japan, base data]
(Titanium dioxide)
hamster LD50>10000mg/kg (HSDB, Access on May 2016)
[Company proprietary data]
(Titanium dioxide)
hamster LD50>10000mg/kg (HSDB, Access on May 2016)
Acute toxicity (Inhalation)
[GHS Cat. Japan, base data]
(Titanium dioxide)
dust: rat LC50 >5.09mg/L (SIDS, 2015)
[Company proprietary data]
(Titanium dioxide)
dust: rat LC50 >5.09mg/L (SIDS, 2015)
Irritant properties
Dust from machining operation may irritate skin.
Dust from machining operation in the eyes will cause irritation. May cause redness and pain.
Allergenic and sensitizing effects data is not available.
Mutagenic effects data is not available.
Carcinogenicity
[GHS Cat. Japan, base data]
(Titanium dioxide)
cat.2; IARC Gr. 2B (IARC 93, 2010 et al.)
[Company proprietary data]

(Titanium dioxide)
cat.2; IARC Gr. 2B (IARC 93, 2010 et al.)
[IARC]
(Titanium dioxide)
Group 2B : Possibly carcinogenic to humans
(Talc)
Group 2B : Possibly carcinogenic to humans (Talc-based body powder (perineal use of))
Group 3 : Not classifiable as to its carcinogenicity to humans (Talc, not containing asbestiform fibres)
[ACGIH]
(Titanium dioxide)
A3(as Finescale particles)(2021) : Confirmed Animal Carcinogen with Unknown Relevance to Humans
(Talc)
A4(2010) : Not Classifiable as a Human Carcinogen (Containing no asbestos fibers)
[JSOH]
(Titanium dioxide)
Group 2B: The agents which are probably or possibly carcinogenic to humans
(Talc)
Group 1: The agents which are carcinogenic to humans
(Titanium dioxide)
Suspected of causing cancer. Inhalation of airborne titanium dioxide dust may cause cancer. Although the product data is insufficient and the hazards cannot be classified, this product contains substances that are suspected to be carcinogenic.

Teratogenic effects data is not available.
Reproductive toxicity data is not available.
STOT
STOT-single exposure
[cat.1]
[GHS Cat. Japan, base data]
(Talc)
respiratory system (ACGIH 7th, 2010)
Although data on the product are inadequate and the hazards cannot be classified, this product contains substances that may cause damage to organs through exposure.
STOT-repeated exposure
[cat.1]
[GHS Cat. Japan, base data]
(Titanium dioxide)
respiratory system (SIDS, 2015)
(Talc)
respiratory system (ACGIH 7th, 2010)
[Company proprietary data]
(Titanium dioxide)
respiratory system (SIDS, 2015)
Although data on the product are inadequate and the hazards cannot be classified, this product contains substances that may cause damage to organs through prolonged or repeated exposure.
Talc may have effects on the lungs, resulting in talc pneumoconio sis.
Aspiration hazard data is not available.

12. Ecological Information

Ecotoxicity
Aquatic toxicity

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

Hazardous to the aquatic environment (Acute)

[GHS Cat. Japan, base data]

(Titanium dioxide)

Crustacea (Daphnia magna) EL50 > 100mg/L/48hr (SIDS, 2015)

(Titanium dioxide)

Crustacea (Daphnia magna) EL50 > 100mg/L/48hr (SIDS, 2015)

[Company proprietary data]

(Titanium dioxide)

Crustacea (Daphnia magna) EL50 > 100mg/L/48hr (SIDS, 2015)

Water solubility

(Titanium dioxide)

none (ICSC, 2002)

(Talc)

none (ICSC, 2012)

The product is insoluble in water and will sediment in water systems.

Persistence and degradability

Persistence and degradability data is not available.

Bioaccumulative potential

Bioaccumulative potential data is not available.

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Waste treatment methods

Dispose of contents/container in accordance with local/national regulation.

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 packing

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

14. Transport Information

UN No., UN CLASS

UN No. or ID No.: Not applicable

UN Proper Shipping Name : Not applicable

Class or division (Transport hazard class) : Not applicable

Packing group : Not applicable

Not applicable to IMDG Code

Not applicable to IATA Dangerous Goods Regulations

Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no) : no

Special precautions for user

Special precautions for user is not applicable.
Rules and regulations on domestic transport
Not applicable to Ship Safety Act
Not applicable to Civil Aeronautics Act

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture
Poisonous and Deleterious Substances Control Law, Japan
The product is not applicable to Toxic/harmful substances control law, Japan
Industrial Safety and Health Act, Japan
The product is not applicable to Specified Substances in Japan.
The product is not applicable to Organic Solvents control law, Japan
Chemical Substances requiring Labeling and Deliver of Documents, etc.
Labeling, etc.
Titanium dioxide (Since this product is an article, it is not regulated as Labeling required substances.)
Report required substances
Titanium dioxide (Since this product is an article, it is not regulated as Report required substances.)
The product is not applicable to the Dangerous or Harmful Substances Subject to Be Indicated their Names, etc.
PRTR law, Japan (valid until 31 March, 2023)
The product is not applicable to Pollution Release and Transfer Register (PRTR) law, Japan (valid until 31 March, 2023)
PRTR law, Japan (effective from 1 April, 2023)
The product is not applicable to Pollutant Release and Transfer Register (PRTR) law, Japan (effective from 1 April, 2023)
The product is not applicable to Fire Service Act, Japan
Not applicable to Specified Chemical Substances, Monitoring Chemical Substances or Priority Assessment Chemical Substances of Chemical Substances Control Law, Japan.

16. Other information

Reference Book
Globally Harmonized System of classification and labelling of chemicals, UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN
IMDG Code, 2018 Edition (Incorporating Amendment 39-18)
IATA Dangerous Goods Regulations (62nd Edition) 2021
2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2022 TLVs and BEIs. (ACGIH)
JIS Z 7252 : 2019
JIS Z 7253 : 2019
2021 Recommendation on TLVs (JSOH)
Supplier's data/information
General Disclaimer
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.
The GHS classification data given here is based on current Japan official data (NITE published in 2020).