



Safety Data Sheet

according to 2012 OSHA HCS (29 CFR 1910.1200)

USA Version 2.0 - Not Valid Without Verified Date

Print Date : 24-SEP-2018
Verified Date : 24-SEP-2018

1. Product and Company Identification

Product identifier

Product code

PS141W526

Product name

HIGH REFLECTANCE WHITE POLYESTER

Manufacturer or distributor

Distributor

Protech Chemicals Ltd.
7600 Henri-Bourassa West
Saint-Laurent, Québec
Canada, H4S 1W3
Tel: (514) 745-0200
US tel: (862) 702-3537
Fax: (514) 745-5774

Manufacturer

Protech Chemicals Ltd.
7600 Henri-Bourassa West
Saint-Laurent, QC
Canada, H4S 1W3
Tel: (514) 745-0200
Fax: (514) 745-5774

E-Mail

info@protechpowder.com

Material uses

Powder Coating for professional use.

Emergency telephone

Anti-Poison Centre: 1-800-463-5060 / (418) 656-8090

2. Hazards Identification

Classification of the substance or mixture

Classification according to 2012 OSHA HCS (29 CFR 1910.1200)

Skin Sensitisation (Cat 1), H317
Serious Eye Damage (Cat 1), H318
Germ Cell Mutagenicity (Cat 1B), H340
Specific Target Organ Toxicity, Repeated Exposure (Cat 2), H373
Combustible Dust

Label elements

Signal word

DANGER

Hazard pictograms

GHS05



GHS07



GHS08

**Hazard statement(s)**

H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H340	May cause genetic defects.
H373	May cause damage to organs through prolonged or repeated exposure.

OSHA statement

May form combustible dust concentrations in air.

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P290	Avoid generation or accumulation of dust.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER or doctor/physician.
P321	Specific treatment (see ... on this label).
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P404	Store in a closed container.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

Supplemental information

Not applicable.

Other hazards

Not applicable.

3. Composition / Information on Ingredients

Mixtures**Substances presenting a hazard within the meaning of WHMIS 2015**

<u>Component name</u>	<u>CAS No.</u>	<u>% by weight</u>
Titanium dioxide	13463-67-7	25 - 30
Barium sulfate	7727-43-7	10 - 15
TGIC	2451-62-9	1 - 5
Tetramethyl-5-decyne-4,7-diol, 2,4,7,9-,	126-86-3	0.1 - 1.0

4. First - Aid Measures

General

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation

Remove to fresh air, keep patient warm. Keep at rest. If breathing is irregular or stopped, administer artificial respiration. Give nothing by mouth. If unconscious place in recovery position and seek medical advice.

Ingestion

If swallowed, do not induce vomiting. Keep at rest. Get medical attention immediately. Never give anything by mouth to an unconscious person.

Skin contact

Immediately remove all contaminated clothing. Wash skin thoroughly with soap and water or use recognised skin cleanser. DO NOT use solvents or thinners.

Eye contact

Remove contact lenses, keep eyelids open. Flush with plenty of clean, fresh water (10 - 15 min.). If irritation persists, seek medical attention.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire - Fighting Measures

Suitable extinguishing media

Water spray, dry chemicals, CO2 or foam. If aluminum or zinc appears in sections 3, 8 or 9 use dry chemicals only.

Unsuitable extinguishing media

High volume water jet.

specific hazards arising from the hazardous product

Decomposition products may contain: carbon oxides, nitrogen oxides, sulphur oxides or metal oxide / oxides.

Special protective equipment for firefighters

Firefighters should wear appropriate equipment and self-containing breathing apparatus with a full face -piece operated in positive pressure mode.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

No action should be taken involving any personal risk or without suitable training. Evacuate surrounding areas, shut of all ignition sources, and provide adequate ventilation. Avoid breathing powder. Put appropriate personal protection equipment. Do not touch or walk through spilled material.

Methods and materials for containment and cleaning up

Small spill: Move containers from spill area. Use appropriate tools to put spilled solid in an identified waste disposal container. Dispose of according to local and regional authority requirements.

Large spill: Move containers from spill area. Prevent entry into sewers, water courses or confined areas. Avoid creating dusty conditions, use water spray to reduce dust. Eliminate all source of ignition. Use appropriate tools to put spilled solid in an identified waste disposal container. Dispose of according to local and regional authority requirements.

7. Handling and Storage

Handling

Use appropriate personal protective equipment (see section 8). Precautions should be taken to prevent formation of dust in concentrations above flammable, explosive or occupational exposure limits. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Preparation may charge electrostatic: always use earth leads when transferring from one container to the other. Use only with adequate ventilation. Eating, drinking and smoking should be prohibited in areas where this material is handled, stores and processed. Wash hands and face before eating, drinking and smoking. Avoid contact with skin and eyes. Avoid inhalation of dust, particulates and spray mist arising from the application of this powder.

Storage

Store between 5°C and 25°C in a dry, well ventilated place away from sources of heat and direct sunlight. Keep container tightly close and sealed until ready to use. Isolate from source of heat, sparks and open flame. Do not store in unlabeled containers.

8. Exposure Controls / Personal Protection

Exposure controls

<u>Component name</u>	<u>CAS No.</u>	<u>Exposure guidelines</u>
Titanium dioxide	13463-67-7	TLV: 10 mg/m ³ PEL: 15 mg/m ³
Barium sulfate	7727-43-7	TLV : 10 mg/m ³ PEL : 5 mg/m ³
TGIC	2451-62-9	TLV: 0.05 mg/m ³

Appropriate engineering controls

Use local exhaust ventilation or other engineering controls to maintain air born levels below exposure limits. All dust control equipment such as local exhaust ventilation and material transport systems involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.

Individual protection measures, such as personal protective equipment

Eye protection

Safety eye-wear should be used when there is a likelihood of exposure.

Skin protection

Personal should wear protective clothing. Avoid prolonged contact with skin. Use gloves when handling powder. Barrier creams applied before powder use may help to protect the exposed areas of the skin but they should not be applied once exposure has occurred.

Respiratory protection

Avoid breathing dust. Mechanical exhaust is recommended. Use a NIOSH approved respirator to remove particles. Respirator selection must be based on known or anticipated exposure levels.

Hygiene measures

Use good personal hygiene practices. Wash hands before eating, drinking and using the lavatory and at the end of the working period. Wash contaminated clothing before reuse. Contaminated clothing should be washed independently of all other types of clothing.

9. Physical and Chemical Properties

Appearance

Powder

Color

White

Odour

Not available.

Odour threshold

Not available.

pH

Neutral

Melting point

Not available.

Boiling point

Not available.

Flash point

Closed cup > 300°C

Evaporation rate

Not available.

Flammability (for solid and gas)

Not available.

Upper explosion limit

Not available.

Lower explosion limit

Not available.

Vapour pressure

Not available.

Vapour density

Not available.

Relative density1.2 - 1.9 g/cm³**Solubility in water**

Insoluble in cold or hot water.

Partition coefficient: n-octanol/water

Not available.

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

Viscosity

Not available.

Combustible dust data

KST value

(110 - 215) ± 10%

ST Class

1 - 2

Maximum explosion pressure

(8.2 - 10.2) ± 10%

Minimum ignition energy

3 - 30 mJ

Minimum ignition temperature

420 - 490 °C

Minimum explosion concentration

70 - 125 g/m³

10. Stability and Reactivity

Reactivity

Not reactive under recommended handling and usage conditions.

Chemical stability

The product is stable under recommended handling, storage and usage conditions.

Possibility of hazardous reactions

The product is stable under recommended handling, storage and usage conditions, hazardous reactions will not occur.

Conditions to avoid

Not available.

Incompatible materials

Strong oxidizing materials, acids, strong alkali.

Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

11. Toxicological Information

Likely routes of exposure

Inhalation, skin contact, eye contact and ingestion

Acute toxicity**Component name**

Titanium dioxide

Barium sulfate

TGIC

Result LD50/LC50

LD50/oral/rat: >7500 mg/kg

LD50/dermal/rabbit: >10000 mg/kg

LD50/oral/rat: >15000 mg/kg

LD50/oral/rat: >447 mg/kg

LD50/dermal/rat: >2000 mg/kg

LC50/inhalation/rat: 0.65 mg/l/4 hours

Carcinogenicity classification**Component name**

Titanium dioxide

ACGIH

A4

IARC

2B

EPA**NIOSH****NTP****OSHA****Remarks**

Titanium dioxide

IARC has classified titanium dioxide as 2B- Possible Carcinogenic to humans. However the only evidence of carcinogenicity is in rats exposed at high concentrations. Tests with other laboratory animals such as mice and hamsters indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that causes lung cancer. Two epidemiology studies on humans among titanium dioxide workers in the US and Europe could not demonstrate an elevated lung cancer risk.

Skin corrosion/irritation

Not classified.

Serious eye damage/eye irritation

Causes serious eye damage.

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified.

Mutagenicity

May cause genetic defects.

Developmental toxicity

Not classified.

STOT SE

Not classified.

STOT RE

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Not classified.

12. Ecological Information

Aquatic ecotoxicity

See Section 02.

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Other adverse effects

No information available.

13. Disposal Considerations

Waste disposal

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. Transport Information

Transport (DOT / IATA / IMDG) Classification

Not a TDG controlled material.

Transport in bulk

No information available.

Special precautions in connection with transport or conveyance either within or outside the premises

Not applicable.

15. Regulatory Information

TSCA

All components of this product are included in the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

DSL

All components of this product are included in the Domestic Substance List (DSL).

SARA 313

This product contains the following chemical(s) subjected to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and to 40 CFR 372:

Ingredients

CERCLA

NPRI

Not applicable.

California prop. 65

Titanium dioxide - 13463-67-7 : Cancer hazard

16. Other Information

HMIS

Health : *2
Flammability: 1
Physical hazard: 0
Personal Protection: F

NFPA

Health : 2
Fire: 1
Reactivity: 0
Specific Hazard:

Refer to NFPA 654, standard for the prevention of fire and dust explosions from the manufacturing, processing and handling of combustible particulate solids, for safe handling.

Abbreviations

HMIS : Hazardous Materials Identification System

* - Chronic Hazard, 0 - Minimal Hazard, 1 - Slight Hazard, 2 - Moderate Hazard, 3 - Serious Hazard, 4 - Severe Hazard

NFPA : National Fire Protection Association

Health: 4 – Deadly, 3 -Extreme danger, 2 – Hazardous, 1 - Slightly hazardous, 0 - Normal material

Fire: 4 - Below 73°F - very flammable, 3 - 73 to 100F – flammable, 2 - 101 to 200F –combustible, 1 - Over 200F -slightly combustible, 0 - Will not Burn

Reactivity: 4- May detonate, 3- Shock or heat may detonate, 2- violent chem. Reaction, 1- Unstable if heated, 0- Stable, W- Use no water

Specific Hazard: OXY- Oxidizer, ACID- Acid, ALK- Alkali, COR- Corrosive, W- Use no water

ACGIH : American Conference of Governmental Industrial Hygienists

ACGIH Carcinogenicity: A1 - Confirmed Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

A4 - Not Classifiable as a Human Carcinogen

A5 - Not suspected as a Human Carcinogen

IARC : International Agency for Research on Cancer

IARC classification: 1- Carcinogenic to Humans

2A - Probably carcinogenic to humans

2B - Possibly carcinogenic to humans

3 - Not classifiable as to its carcinogenicity to humans

4 - Probably not carcinogenic to humans

EPA : Environmental Protection Agency

NIOSH : National Institute for Occupational Safety and Health

CA - carcinogenic

NTP : National Toxicology Program

K - Known to be human carcinogens

R - Reasonably anticipated to be human carcinogen

OSHA : Occupational Safety and Health Administration

DOT : Department of Transportation

IMDG : International Maritime Dangerous Goods

IATA : International Air Transport association

TSCA : Toxic Substance Control Act

DSL : Domestic Substance List

SARA313 : Superfund Amendments and Reauthorization Act - Toxic Chemical Release Inventory (Section 313)

NPRI : National Pollutant Release Inventory

CERCLA : Comprehensive Environmental response, Compensation and Liability Act

California Prop. 65 : California Proposition 65

STOT SE : Specific Target Organ Toxicity - Single Exposure

STOT RE : Specific Target Organ Toxicity – Repeated Exposure

Date of preparations

September 24, 2018

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