

PE 6% FROSTY WHITE #2

Page 1

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

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SECTION 1. IDENTIFICATION

Identification of the company:

Clariant Plastics & Coatings Canada Inc.
2 Lone Oak Court
Toronto, Ontario, M9C 5R9
Telephone No.: +1 514-832-2559

Information of the substance/preparation:

BU Masterbatches
Product Stewardship, +1-704-331-7710
e-mail: SDS.NORAM@clariant.com

Emergency tel. number: +1 CANUTEC (613) 996-6666**Trade name:****PE 6% FROSTY WHITE #2****Material number:**

PE0N754569

Chemical family:

Colourant preparation
Carrier: LDPE

Primary product use:

Additive for plastic material processing

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

Hazards Not Otherwise Classified:

If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

: Colourant preparation
Carrier: LDPE

Components

Chemical name	CAS-No.	Concentration (% w/w)
Aluminium oxide	1344-28-1	0.1 - 1
Amorphous silicon dioxide	7631-86-9	0.1 - 1
Calcium carbonate	471-34-1	0.1 - 1
C.I. Pigment White 6	13463-67-7	30 - 60

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) and by the Canadian WHMIS 2015 Hazardous Products Regulations (SOR/2015-17)., The hazardous ingredients of this product are encapsulated, therefore the material is not

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

GHS classified for health and environmental hazards as exposure is not expected., Any concentration shown as a range is due to batch variation.

SECTION 4. FIRST AID MEASURES

- If inhaled : Move the victim to fresh air.
Give oxygen or artificial respiration if needed.
Get immediate medical advice/ attention.
Never give anything by mouth to an unconscious person.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
In case of burns apply cold water until pain subsides then seek medical advice.
Burns must be treated by a physician.
If molten polymer contact the skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Obtain medical attention for thermal burn. Skin absorption of reground pellets is unlikely.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Get medical attention immediately if irritation develops and persists.
- If swallowed : Rinse mouth.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
Get medical advice/ attention.
- Most important symptoms and effects, both acute and delayed : The possible symptoms known are those derived from the labelling (see section 2).
No additional symptoms are known.
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide
Carbon dioxide (CO₂)

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Metal oxides
Sulphur oxides

- Further information : Combustible material
In the event of fire and/or explosion do not breathe fumes.
During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion
Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
Do not allow run-off from fire fighting to enter drains or water courses.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
Avoid contact with skin, eyes and clothing.
Wash thoroughly after handling.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
Prevent product from entering drains.
- Methods and materials for containment and cleaning up : Avoid dust formation.
Take measures to prevent the build up of electrostatic charge.
Sweep up and shovel into suitable containers for disposal.
Take up uncontaminated material and pass on for further processing.
After cleaning, flush away traces with water.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Take measures to prevent the build up of electrostatic charge.
- Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice.
Use only with adequate ventilation/personal protection.
For personal protection see section 8.
Avoid contact with skin, eyes and clothing.
Use only with adequate ventilation.
When handling hot melts use suitable protective clothing.
Avoid dust formation. Keep away from sources of ignition.
Lead off electrostatic charges.
- Conditions for safe storage : Keep container tightly closed in a cool, well-ventilated place.

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Protect from moisture.
Keep away from direct sunlight.

Further information on storage conditions : Store in a cool, dry, well-ventilated area. Keep container sealed when not in use.
Keep in an area equipped with sprinklers.
Minimize dust generation and accumulation.

Materials to avoid : not required

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
C.I. Pigment White 6	13463-67-7	TWA	10 mg/m ³	CA AB OEL
		TWA (Total dust)	10 mg/m ³	CA BC OEL
		TWA (respirable dust fraction)	3 mg/m ³	CA BC OEL
		TWAEV (total dust)	10 mg/m ³	CA QC OEL
Aluminium oxide	1344-28-1	TWA	10 mg/m ³	CA AB OEL
		TWAEV (total dust)	10 mg/m ³ (Aluminium)	CA QC OEL
		TWA (Respirable)	1 mg/m ³ (Aluminium)	CA BC OEL
		TWA (Respirable fraction)	1 mg/m ³ (Aluminium)	ACGIH
Amorphous silicon dioxide	7631-86-9	TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m ³ / %SiO ₂ (Silica)	OSHA Z-3
Calcium carbonate	471-34-1	TWAEV (total dust)	10 mg/m ³	CA QC OEL

Engineering measures : Use only in area provided with appropriate exhaust ventilation.
Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.
Use engineering controls such as local or general exhaust to maintain airborne concentrations below exposure limits.

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Personal protective equipment

Respiratory protection : Use NIOSH/MSHA approved respirators following manufacturer's recommendations where dust or fume may be generated.
Use respiratory protective equipment when using this product at elevated temperatures (see section 8).

Hand protection
Remarks : Nitrile rubber gloves. Impervious butyl rubber gloves PVC Neoprene gloves When handling hot material, use heat resistant gloves.

Eye protection : Safety glasses with side-shields

Skin and body protection : Wear protective clothing, including long sleeves and gloves, to prevent skin contact.
When handling hot melts use suitable protective clothing.

Hygiene measures : The usual Industrial Hygiene precautions must be taken during work, in particular: do not drink, eat or smoke during the handling of the product and clean hands and face during work intervals and after work.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Granules

Colour : white

Odour : characteristic

Odour Threshold : Not applicable

pH : Not applicable

Melting point : > 110 °C

Boiling point : Not applicable

Flash point : Not applicable

Evaporation rate : Not applicable

Flammability (solid, gas) : not determined

Self-ignition : Not applicable

Upper explosion limit / upper flammability limit : not tested.

Lower explosion limit / Lower flammability limit : not tested.

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Relative density	:	not available
Density	:	not tested.
Solubility(ies) Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	This property is not applicable for mixtures.
Decomposition temperature	:	To the best of our current knowledge, no thermal decomposition of the product is expected if it is processed according to good manufacturing practices. See section 10.4. "Conditions to avoid"
Viscosity Viscosity, dynamic	:	Not applicable
Viscosity, kinematic	:	Not applicable
Explosive properties	:	no data available no data available
Oxidizing properties	:	not available
Surface tension	:	Not relevant
Particle size	:	Product specific

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	To avoid thermal decomposition, do not overheat. Heating can release hazardous gases. Keep away from heat, sparks, open flames, and other sources of ignition. If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

released into the atmosphere in sufficient concentration.

Incompatible materials : None.
Strong oxidizing agents
Halogenated hydrocarbons

Hazardous decomposition products : The product does not contain any chemical groups which suggest self-reactive properties, nor is the estimated SADT less than 75 °C, nor is the exothermic decomposition energy higher than 300 J/g.
No decomposition if used as directed.

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

None known.

Acute toxicity**Components:****Aluminium oxide:**

Acute oral toxicity : LD50 (Rat, male and female): > 10,000 mg/kg
Method: OECD Test Guideline 401
GLP: No information available.

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.3 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : Remarks: Not applicable

Amorphous silicon dioxide:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes
Remarks: No significant adverse effects were reported

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.08 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
Assessment: The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations.

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Method: Other

PE 6% FROSTY WHITE #2

Page 8

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

GLP: no

C.I. Pigment White 6:

- Acute oral toxicity : LD50 (Rat, female): > 5,000 mg/kg
Method: OECD Test Guideline 425
GLP: no
- Acute inhalation toxicity : LC50 (Rat, male and female): 3.4 - 5.1 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: no
Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity : Assessment: The substance or mixture has no acute dermal toxicity
Remarks: not required

Skin corrosion/irritation**Product:**

Result: No skin irritation

Components:**Aluminium oxide:**

Species: Rabbit
Exposure time: 24 h
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: No information available.

Amorphous silicon dioxide:

Species: Rabbit
Exposure time: 4 h
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes

C.I. Pigment White 6:

Species: Rabbit
Exposure time: 4 h
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: no

PE 6% FROSTY WHITE #2

Page 9

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Serious eye damage/eye irritation**Product:**

Result: No eye irritation

Components:**Aluminium oxide:**

Result: Mild eye irritation

Amorphous silicon dioxide:

Species: Rabbit

Result: No eye irritation

Exposure time: 24 h

Method: OECD Test Guideline 405

GLP: yes

C.I. Pigment White 6:

Species: rabbit eye

Result: No eye irritation

Method: OECD Test Guideline 405

GLP: No information available.

Respiratory or skin sensitisation**Product:**

Result: non-sensitizing

Components:**Aluminium oxide:**

Test Type: Draize Test

Exposure routes: Dermal

Species: Guinea pig

Method: Draize Test

Result: Not a skin sensitizer.

GLP: no

Test Type: Respiratory system

Exposure routes: inhalation (dust/mist/fume)

Species: Mouse

Method: Other

Result: Not a skin sensitizer.

GLP: no

Amorphous silicon dioxide:

Remarks: no data available

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

C.I. Pigment White 6:

Test Type: Local lymph node assay (LLNA)

Exposure routes: Dermal

Species: Mouse

Method: OECD Test Guideline 429

Result: Not a skin sensitizer.

GLP: No information available.

Test Type: Buehler Test

Exposure routes: Dermal

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Not a skin sensitizer.

GLP: yes

Test Type: Respiratory system

Exposure routes: inhalation (dust/mist/fume)

Species: Mouse

Method: Other

Result: Does not cause respiratory sensitisation.

GLP: No information available.

Germ cell mutagenicity**Components:****Aluminium oxide:**

Genotoxicity in vitro : Test Type: In vitro gene mutation study in mammalian cells
Test system: mouse lymphoma cells
Concentration: 6,1 - 780 µg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes
Remarks: By analogy with a product of similar composition

Genotoxicity in vivo : Test Type: Chromosome Aberration Test
Species: Rat (female)
Strain: wistar
Cell type: Bone marrow
Application Route: oral (gavage)
Exposure time: Single exposure
Dose: 500 - 1000 - 2000 mg/kg
Method: OECD Test Guideline 475
Result: positive
GLP: No information available.

Test Type: Micronucleus test
Species: Rat (female)
Strain: wistar
Cell type: Bone marrow
Application Route: oral (gavage)
Exposure time: Single exposure

PE 6% FROSTY WHITE #2

Page 11

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Dose: 500 - 1000 - 2000 mg/kg
Method: OECD Test Guideline 474
Result: positive
GLP: No information available.

Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

Amorphous silicon dioxide:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Concentration: 667 - 10000 µg/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Test Type: In vitro gene mutation study in mammalian cells
Test system: Chinese hamster ovary cells
Concentration: 10 - 500 µg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Concentration: 38 - 1000 µg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes

Genotoxicity in vivo : Test Type: Cytogenetic assay
Species: Rat (male)
Strain: Fischer F344
Application Route: Inhalation
Exposure time: 13 w, 6 h/d, 5 d/wk
Dose: ca. 50 mg/m³
Method: Other
Result: negative
GLP: No information available.

Germ cell mutagenicity - Assessment : In vitro tests did not show mutagenic effects, In vivo tests did not show mutagenic effects

C.I. Pigment White 6:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Concentration: 333 - 5000 µg/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471

PE 6% FROSTY WHITE #2

Page 12

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Result: negative

GLP: yes

Test Type: Ames test

Test system: Escherichia coli

Concentration: 333 - 5000 µg/plate

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

GLP: yes

Genotoxicity in vivo

: Test Type: Micronucleus test
Species: Mouse (male and female)
Strain: ICR
Cell type: Erythrocytes
Application Route: oral (gavage)
Exposure time: single treatment
Dose: 500 - 1000 - 2000 mg/kg
Method: OECD Test Guideline 474
Result: negative
GLP: yes

Germ cell mutagenicity -
Assessment

: In vitro tests did not show mutagenic effects, In vivo tests did not show mutagenic effects

Carcinogenicity**Components:****Aluminium oxide:**Carcinogenicity -
Assessment

: Carcinogenicity classification not possible from current data.

Amorphous silicon dioxide:

Species: Rat, (male and female)

Application Route: oral (feed)

Exposure time: 103 w

Dose: 1,25 - 2,5 - 5 % in diet

Group: yes

Frequency of Treatment: daily

NOAEL: ca. 1,800 - 3,000 mg/kg bw/day

Method: OECD Test Guideline 453

Result: negative

GLP: No information available.

Carcinogenicity -
Assessment

: Not classifiable as a human carcinogen.

C.I. Pigment White 6:Carcinogenicity -
Assessment

: Not classifiable as a human carcinogen.

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Reproductive toxicity**Components:****Aluminium oxide:**

Effects on fertility : Species: Rat, male and female
Strain: Sprague-Dawley
Application Route: Drinking water
Dose: 57 - 189 - 567 mg/kg
General Toxicity - Parent: NOAEL: ca. 567 mg/kg body weight
General Toxicity F1: NOAEL: ca. 57 mg/kg body weight
Method: Other
GLP: yes
Remarks: By analogy with a product of similar composition

Effects on foetal development : Species: Rat
Strain: wistar
Application Route: oral (gavage)
Dose: 126 - 251 - 503 mg/kg
Frequency of Treatment: 2 daily
General Toxicity Maternal: NOAEL: > 100 mg/kg body weight
Teratogenicity: NOAEL: 503 mg/kg body weight
Method: OECD Test Guideline 414
GLP: No information available.
Remarks: By analogy with a product of similar composition

Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.
No teratogenic effects to be expected.

Amorphous silicon dioxide:

Effects on fertility : Test Type: One generation study
Species: Rat, male and female
Strain: Sprague-Dawley
Application Route: oral (feed)
Dose: 497 (m), 509 (f) mg/kg
General Toxicity - Parent: NOAEL: 497 mg/kg body weight
General Toxicity F1: NOAEL: 497 mg/kg body weight
Method: OECD Test Guideline 415
GLP: no

Effects on foetal development : Test Type: Pre-natal
Species: Rat
Strain: wistar
Application Route: oral (gavage)
Dose: 13,5 - 62,7 - 292 - 1350mg/kg
General Toxicity Maternal: NOAEL: 1,350 mg/kg body weight
Teratogenicity: NOAEL: 1,350 mg/kg body weight
Method: OECD Test Guideline 414
GLP: no

Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

No teratogenic effects to be expected.

C.I. Pigment White 6:

Effects on fertility : Remarks: no data available

Effects on foetal development : Test Type: Pre-natal
Species: Rat, female
Strain: wistar
Application Route: oral (gavage)
Dose: 100, 300, 1000 mg/kg bw
Duration of Single Treatment: 14 d
Frequency of Treatment: 1 daily
General Toxicity Maternal: NOAEL: 1,000 mg/kg body weight
Developmental Toxicity: NOAEL: 1,000 mg/kg body weight
Embryo-foetal toxicity: NOEL: 1,000 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes
Remarks: No significant adverse effects were reported

Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.
Did not show teratogenic effects in animal experiments.

STOT - single exposure**Components:****Aluminium oxide:**

Target Organs: Lungs

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Amorphous silicon dioxide:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

C.I. Pigment White 6:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure**Components:****Aluminium oxide:**

Target Organs: Lungs

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Amorphous silicon dioxide:

Assessment: The substance or mixture is not classified as specific target organ toxicant,

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

repeated exposure.

C.I. Pigment White 6:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity**Components:****Aluminium oxide:**

Species: Rat, male and female

NOAEL: 57 mg/kg

Application Route: Drinking water

Exposure time: 1 a

Number of exposures: continuously

Dose: 57 - 189 - 567 mg/kg

Group: yes

Method: OECD Test Guideline 426

GLP: yes

Remarks: By analogy with a product of similar composition

Species: Rat

LOAEL: 0.070 mg/l

Application Route: Inhalation

Exposure time: 6 m

Number of exposures: 6 hr/day; 5 days a week

Dose: 15-30-50-70-100 mg Al/m³

Method: OECD Test Guideline 413

GLP: No information available.

Application Route: Skin contact

Remarks: The study is not necessary from a scientific perspective.

Amorphous silicon dioxide:

Species: Rat, male and female

NOAEL: 4000 - 4500 mg/kg bw/day

Application Route: oral (feed)

Exposure time: 13 w

Number of exposures: continuously

Dose: 0,5 - 2 - 6,7 % SI in diet

Group: yes

Method: OECD Test Guideline 408

GLP: yes

Species: Rat, male and female

NOAEL: 1,3 mg/m³

LOAEL: 0.0059 mg/l

Application Route: Inhalation

Exposure time: 13 w

Number of exposures: 6 hr/day; 5 days a week

Dose: 1,3 - 5,9 - 31 mg/m³

PE 6% FROSTY WHITE #2

Page 16

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Group: yes
Method: OECD Test Guideline 413
GLP: yes

Application Route: Skin contact
Remarks: This information is not available.

C.I. Pigment White 6:

Species: Rat, male
NOEL: > 24000 mg/kg bw/day
Application Route: oral (gavage)
Exposure time: 29 d
Number of exposures: daily
Dose: 24000 mg/kg
Group: yes
Method: OECD Test Guideline 407
GLP: No information available.

Species: Rat, male and female
NOAEL: 0.01 mg/l
Application Route: Inhalation
Exposure time: 2 a
Number of exposures: 6 hours/day, 5 days/week
Dose: 0,0106 - 0,0507 - 0,250 mg/l
Group: yes
Method: Repeated Dose Toxicity (chronic Toxicity)
GLP: no

Aspiration toxicity**Components:****Aluminium oxide:**

No aspiration toxicity classification

Amorphous silicon dioxide:

No aspiration toxicity classification

C.I. Pigment White 6:

No aspiration toxicity classification

Experience with human exposure**Product:**

General Information : The possible symptoms known are those derived from the labelling (see section 2).

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Further information**Components:****C.I. Pigment White 6:**

Remarks: Lung damage possible.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:**

Toxicity to fish :
Remarks: no data available

Components:**Aluminium oxide:**

Toxicity to fish : NOEC (Salmo trutta (brown trout)): > 0.072 mg/l
Exposure time: 96 h
Test Type: semi-static test
Analytical monitoring: yes
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other : NOEC (Daphnia magna (Water flea)): > 0.071 mg/l
aquatic invertebrates
Exposure time: 48 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic : NOEC (Pseudokirchneriella subcapitata (green algae)): >=
plants
0.052 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes

EC50 (Pseudokirchneriella subcapitata (green algae)): 1.05
mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes
Remarks: By analogy with a product of similar composition

Toxicity to fish (Chronic : NOEC (Pimephales promelas (fathead minnow)): 56.48 mg/l
toxicity)
Exposure time: 7 d

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Test Type: semi-static test
Analytical monitoring: yes
Method: Other
GLP: yes
Remarks: By analogy with a product of similar composition

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.076 mg/l
End point: Reproduction rate
Exposure time: 21 d
Test Type: semi-static test
Analytical monitoring: yes
Method: OECD Test Guideline 211
GLP: yes
Remarks: By analogy with a product of similar composition

Toxicity to microorganisms : Remarks: Not applicable

Toxicity to soil dwelling organisms : Remarks: Not applicable

Plant toxicity : Remarks: Not applicable

Sediment toxicity : Remarks: Not applicable

Toxicity to terrestrial organisms : Remarks: Not applicable

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Amorphous silicon dioxide:

Toxicity to fish : LL0 (Brachydanio rerio (zebrafish)): 10,000 mg/l
End point: mortality
Exposure time: 96 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 203
GLP: yes
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 1,000 mg/l
End point: Immobilization
Exposure time: 24 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 202
GLP: yes
Remarks: The details of the toxic effect relate to the nominal concentration.

PE 6% FROSTY WHITE #2

Page 19

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Toxicity to algae/aquatic plants : EL50 (Desmodesmus subspicatus (green algae)): > 10,000 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 201
GLP: yes
Remarks: By analogy with a product of similar composition
The details of the toxic effect relate to the nominal concentration.

Toxicity to fish (Chronic toxicity) : NOEC: 86.03 mg/l
Exposure time: 30 d
Method: Other
GLP: no
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 34.223 mg/l
Exposure time: 30 d
Method: Other
GLP: no
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Sediment toxicity : LC50: 148.41 mg/l
Duration: 14 d
Method: Other
GLP: no
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

C.I. Pigment White 6:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: no
Method: EPA
GLP: yes
Remarks: The details of the toxic effect relate to the nominal concentration.

LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 203

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

GLP: No information available.

Remarks: The details of the toxic effect relate to the nominal concentration.

LC50 (Cyprinodon variegatus (sheepshead minnow)): > 10,000 mg/l

Exposure time: 96 h

Test Type: semi-static test

Analytical monitoring: no data available

Method: OECD Test Guideline 203

GLP: yes

Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Test Type: static test

Analytical monitoring: no data available

Method: OECD Test Guideline 202

GLP: no data available

Remarks: The details of the toxic effect relate to the nominal concentration.

LC50 (Acartia tonsa): > 10,000 mg/l

Exposure time: 48 h

Analytical monitoring: no data available

Method: ISO 14669 and PARCOM method

GLP: yes

Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (microalgae)): 61 mg/l

End point: Growth rate

Exposure time: 72 h

Test Type: static test

Analytical monitoring: no

Method: EPA

GLP: No information available.

Remarks: The details of the toxic effect relate to the nominal concentration.

EC50 (Skeletonema costatum (marine diatom)): > 10,000 mg/l

End point: Growth rate

Exposure time: 72 h

Analytical monitoring: no data available

Method: ISO 10253

GLP: yes

Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to fish (Chronic toxicity) : LC50 (Oncorhynchus mykiss (rainbow trout)): 7.31 mg/l

Exposure time: 28 d

Test Type: static test

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Analytical monitoring: yes
Method: Other
GLP: No information available.
Remarks: By analogy with a product of similar composition

Toxicity to microorganisms : EC50 (activated sludge of a predominantly domestic sewage):
> 1,000 mg/l
End point: Bacteria toxicity (respiration inhibition)
Exposure time: 3 h
Test Type: aquatic
Method: OECD Test Guideline 209
GLP: yes
Remarks: The details of the toxic effect relate to the nominal concentration.

NOEC (activated sludge of a predominantly domestic sewage): $\geq 1,000$ mg/l
End point: Bacteria toxicity (respiration inhibition)
Exposure time: 3 h
Test Type: aquatic
Method: OECD Test Guideline 209
GLP: yes
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to soil dwelling organisms : Test Type: artificial soil
NOEC (*Folsomia candida*): 0,1 $\rightarrow \geq 10$ %
Exposure time: 28 d
End point: mortality
Method: ISO 11267
GLP: no
Remarks: By analogy with a product of similar composition
This product does not have any known adverse effect on the soil organisms tested.

Plant toxicity : NOEC: ≥ 10 %
Exposure time: 20 h
End point: Growth
Species: *Lactuca sativa* (lettuce)
Analytical monitoring: yes
Method: Other
GLP: no
Remarks: By analogy with a product of similar composition
No effect on the growth was observed.

Sediment toxicity : NOEC (*Hyalella azteca* (Scud)): ≥ 100000 %
Analytical monitoring: no
Sediment: artificial soil
Exposure duration: 28 d
Nominal / Measured: nominal
Basis for effect: mortality
Method: Other
GLP: no

PE 6% FROSTY WHITE #2

Page 22

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Remarks: By analogy with a product of similar composition

NOEC: \geq 14989 mg/kg dry weight (d.w.)

Analytical monitoring: no data available

Sediment: Natural sediment

Exposure duration: 10 d

Nominal / Measured: nominal

Basis for effect: mortality

Method: Other

GLP: yes

Persistence and degradability**Components:****Aluminium oxide:**

Biodegradability : Remarks: Not applicable

Amorphous silicon dioxide:

Biodegradability : Remarks: Not applicable

C.I. Pigment White 6:

Biodegradability : Remarks: Not applicable for inorganic compound.

Bioaccumulative potential**Product:**

Bioaccumulation : Remarks: not tested.

Components:**Aluminium oxide:**

Bioaccumulation : Remarks: Not applicable

C.I. Pigment White 6:

Bioaccumulation : Species: Oncorhynchus mykiss (rainbow trout)
Bioconcentration factor (BCF): 20 - 200
Exposure time: 14 d
Concentration: 0.1 - 1 mg/l
Method: Other
GLP: No information available.
Remarks: Does not accumulate in organisms.

Partition coefficient: n-octanol/water : Remarks: inorganic

Mobility in soil**Product:**

Distribution among : Remarks: not tested.

PE 6% FROSTY WHITE #2

Page 23

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

environmental compartments

Components:**Aluminium oxide:**Distribution among : Remarks: Not applicable
environmental compartments**C.I. Pigment White 6:**

Mobility : Remarks: Adsorption to solid soil phase is possible.

Distribution among : Adsorption/Soil
environmental compartments Medium: water - soil
log Koc: 4.61
Method: Other**Other adverse effects****Product:**Results of PBT and vPvB : Remarks: No information is available as no chemical safety
assessment report (CSR) is required.Additional ecological : Do not allow to enter ground water, waterways or waste water.
information**Components:****Aluminium oxide:**Environmental fate and : not available
pathwaysResults of PBT and vPvB : Remarks: Not applicable
assessmentAdditional ecological : Do not allow to enter ground water, waterways or waste water.
information**Amorphous silicon dioxide:**Environmental fate and : not available
pathwaysResults of PBT and vPvB : The substance is not identified as a PBT or as a vPvB
assessment substance.Additional ecological : Do not allow to enter ground water, waterways or waste water.
information**C.I. Pigment White 6:**Environmental fate and : not available
pathways

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

Additional ecological information : Do not allow to enter ground water, waterways or waste water.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Dispose of this product in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Regulations concerning reuse or disposal of used packaging materials must be observed.

SECTION 14. TRANSPORT INFORMATION

TDG not restricted

IATA not restricted

IMDG not restricted

SECTION 15. REGULATORY INFORMATION

NPRI Components : Chromium (III) compound
Antimony compounds

The components of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

Canadian lists

No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION**Full text of other abbreviations**

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

CA AB OEL : Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)

CA BC OEL : Canada. British Columbia OEL

CA QC OEL : Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

ACGIH / TWA	:	8-hour, time-weighted average
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA QC OEL / TWAEV	:	Time-weighted average exposure value
OSHA Z-3 / TWA	:	8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Revision Date : 05/08/2019

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SAFETY DATA SHEET



PE 6% FROSTY WHITE #2

Page 26

Substance key: 000000681587

Revision Date: 05/08/2019

Version : 1 - 0 / CDN

Date of printing :05/08/2019

change. Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing Clariant products, are available upon request and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products. For additional information, please contact Clariant.

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