| | |
|---|---|
| Substance key: 000000648841 | Revision Date: 06/05/2017 |
| Version : 1 - 0 / CDN | Date of printing :06/05/2017 |

## SECTION 1. IDENTIFICATION

| | |
|---|---|
| **Identification of the company:** | Clariant Plastics & Coatings Canada Inc.<br>2 Lone Oak Court<br>Toronto, Ontario, M9C 5R9<br>Telephone No.: +1 514-832-2559<br><br>**Information of the substance/preparation:**<br>Product Stewardship, +1-704-331-7710<br>e-mail: SDS.NORAM@clariant.com<br><br>**Emergency tel. number:** +1 800-424-9300 CHEMTREC, +1 (703) 527-3887 INTERNATIONAL |

| | |
|---|---|
| **Trade name:** | **PVC 8266 003.000% 7452 BROWN # 2** |
| **Material number:** | CV84755036 |
| **Chemical family:** | Colourant preparation<br>Carrier: PVC |
| **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: PVC

**Hazardous components**

| Chemical name | CAS-No. | Concentration (% w/w) |
|---|---|---|
| Aluminium oxide | 1344-28-1 | 0.1 - 0.25 |
| Amorphous silicon dioxide | 7631-86-9 | 0.1 - 0.25 |
| C.I. Pigment Black 7 | 1333-86-4 | 1 - 2.5 |
| Zinndioctyl-bis(thioglykolsäureisooctylester) | 26401-97-8 | 1 - 2.5 |
| Diiron trioxide | 1309-37-1 | 5 - 7 |
| C.I. Pigment White 6 | 13463-67-7 | 7 - 10 |

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 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.<br>Give oxygen or artificial respiration if needed.<br>Get immediate medical advice/ attention.<br>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.<br>In case of burns apply cold water until pain subsides then seek medical advice.<br>Burns must be treated by a physician.<br>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.<br>Get medical attention immediately if irritation develops and persists. |
| If swallowed | : | Rinse mouth.<br>Do NOT induce vomiting.<br>Never give anything by mouth to an unconscious person.<br>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).<br>No additional symptoms are known. |
| Notes to physician | : | Treat symptomatically. |

## SECTION 5. FIREFIGHTING MEASURES

| | | |
|---|---|---|
| Suitable extinguishing media | : | Water spray<br>Foam<br>Carbon dioxide (CO2)<br>Dry chemical |
| Unsuitable extinguishing media | : | High volume water jet |
| Specific hazards during | : | In case of fire hazardous decomposition products may be |

| | | |
|---|---|---|
| firefighting | | produced such as:<br>Hydrogen chloride<br>Carbon monoxide<br>Carbon dioxide (CO2)<br>Metal oxides<br>Sulphur oxides |
| Further information | : | Combustible material<br>In the event of fire and/or explosion do not breathe fumes.<br>During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion<br>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.<br>Do not allow run-off from fire fighting to enter drains or water courses.<br>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.<br>Avoid contact with skin, eyes and clothing.<br>Wash thoroughly after handling. |
| Environmental precautions | : | Do not allow contact with soil, surface or ground water.<br>Prevent product from entering drains. |
| Methods and materials for containment and cleaning up | : | Avoid dust formation.<br>Take measures to prevent the build up of electrostatic charge.<br>Sweep up and shovel into suitable containers for disposal.<br>Take up uncontaminated material and pass on for further processing.<br>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.<br>Use only with adequate ventilation/personal protection.<br>For personal protection see section 8.<br>Avoid contact with skin, eyes and clothing.<br>Use only with adequate ventilation.<br>When handling hot melts use suitable protective clothing.<br>Avoid dust formation. Keep away from sources of ignition.<br>Lead off electrostatic charges. |

| | | |
|---|---|---|
| Conditions for safe storage | : | Keep container tightly closed in a cool, well-ventilated place.<br>Protect from moisture.<br>Keep away from direct sunlight. |
| Technical measures/Precautions | : | Store in a cool, dry, well-ventilated area. Keep container sealed when not in use.<br>Keep in an area equipped with sprinklers.<br>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 Black 7 | 1333-86-4 | TWA | 3.5 mg/m3 | CA AB OEL |
| | | TWA (Inhalable) | 3 mg/m3 | CA BC OEL |
| | | TWAEV | 3.5 mg/m3 | CA QC OEL |
| | | TWA (Inhalable fraction) | 3 mg/m3 | ACGIH |
| C.I. Pigment White 6 | 13463-67-7 | TWA | 10 mg/m3 | CA AB OEL |
| | | TWA (Total dust) | 10 mg/m3 | CA BC OEL |
| | | TWA (respirable dust fraction) | 3 mg/m3 | CA BC OEL |
| | | TWAEV (total dust) | 10 mg/m3 | CA QC OEL |
| Diiron trioxide | 1309-37-1 | TWA (Respirable) | 5 mg/m3 | CA AB OEL |
| | | TWA (Fumes) | 5 mg/m3 (Iron) | CA BC OEL |
| | | TWA (Dust) | 5 mg/m3 (Iron) | CA BC OEL |
| | | STEL (Fumes) | 10 mg/m3 (Iron) | CA BC OEL |
| | | TWAEV (fume and dust) | 5 mg/m3 (Iron) | CA QC OEL |
| | | TWA (Respirable fraction) | 5 mg/m3 | ACGIH |
| Aluminium oxide | 1344-28-1 | TWA | 10 mg/m3 | CA AB OEL |

| | | | | |
|---|---|---|---|---|
| | | TWAEV (total dust) | 10 mg/m3 (Aluminium) | CA QC OEL |
| | | TWA (Respirable) | 1 mg/m3 (Aluminium) | CA BC OEL |
| | | TWA (Respirable fraction) | 1 mg/m3 (Aluminium) | ACGIH |
| Amorphous silicon dioxide | 7631-86-9 | TWA (Dust) | 20 Million particles per cubic foot (Silica) | OSHA Z-3 |
| | | TWA (Dust) | 80 mg/m3 / %SiO2 (Silica) | OSHA Z-3 |
| Zinndioctyl-bis(thioglykolsäureisooctylester) | 26401-97-8 | TWA | 0.1 mg/m3 (Tin) | CA AB OEL |
| | | STEL | 0.2 mg/m3 (Tin) | CA AB OEL |
| | | TWAEV | 0.1 mg/m3 (Tin) | CA QC OEL |
| | | STEV | 0.2 mg/m3 (Tin) | CA QC OEL |
| | | TWA | 0.1 mg/m3 (Tin) | CA BC OEL |
| | | STEL | 0.2 mg/m3 (Tin) | CA BC OEL |
| | | TWA | 0.1 mg/m3 (Tin) | CA ON OEL |
| | | TWA | 0.1 mg/m3 (Tin) | ACGIH |
| | | STEL | 0.2 mg/m3 (Tin) | ACGIH |

**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.

**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.<br>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 | : | brown |
| Odour | : | characteristic |
| Odour Threshold | : | Not applicable |
| pH | : | Not applicable |
| Melting point | : | > 70 °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 | : | not tested. |
| Lower explosion limit | : | not tested. |
| 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 | : | > 200 °C |
| Viscosity | | |
| Viscosity, dynamic | : | Not applicable |
| Viscosity, kinematic | : | Not applicable |
| Explosive properties | : | no data available<br>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 | : | Lithium |
| Conditions to avoid | : | To avoid thermal decomposition, do not overheat.<br>Heating can release hazardous gases.<br>Keep away from heat, sparks, open flames, and other sources of ignition.<br>If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.<br>Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. |
| Incompatible materials | : | none<br>Strong oxidizing agents |
| Hazardous decomposition products | : | When handled and stored appropriately, no dangerous decomposition products are known<br>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. |

## SECTION 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

None known.

**Acute toxicity**

**Product:**

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

**Components:**

**Amorphous silicon dioxide:**

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

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

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Method: Other
GLP: no

**C.I. Pigment Black 7:**

Acute oral toxicity : LD50 (Rat, male and female): > 8,000 mg/kg
Method: OECD Test Guideline 401
GLP: no

Acute inhalation toxicity : LC0 (Rat): > 0.0046 mg/l
Exposure time: 4 h
Method: Other
GLP: No information available.

Acute dermal toxicity : Remarks: not required

**Diiron trioxide:**

Acute toxicity (other routes of administration) : LD50 (Rat): 5,550 mg/kg
Application Route: Intraperitoneal injection

**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

Method: OECD Test Guideline 403
GLP: no

Acute dermal toxicity : Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Not applicable

**Skin corrosion/irritation**

**Product:**

Result: No skin irritation

**Components:**

**Amorphous silicon dioxide:**

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

**C.I. Pigment Black 7:**

Species: Rabbit
Exposure time: 4 - 24 h
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: no

**C.I. Pigment White 6:**

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

**Serious eye damage/eye irritation**

**Product:**

Result: No eye irritation

**Components:**

**Amorphous silicon dioxide:**

Species: rabbit eye
Result: No eye irritation
Exposure time: 24 h
Method: OECD Test Guideline 405
GLP: yes

**C.I. Pigment Black 7:**

Species: rabbit eye
Result: No eye irritation
Method: OECD Test Guideline 405
GLP: no

**C.I. Pigment White 6:**

Species: rabbit eye
Result: non-irritant
Method: OECD Test Guideline 405
GLP: No information available.

**Respiratory or skin sensitisation**

**Product:**

Result: non-sensitizing

**Components:**

**Amorphous silicon dioxide:**

Remarks: Not relevant

**C.I. Pigment Black 7:**

Test Type: Buehler Test
Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: non-sensitizing
GLP: yes

**C.I. Pigment White 6:**

Test Type: Mouse local lymphnode assay
Exposure routes: Skin contact
Species: Mouse
Method: OECD Test Guideline 429
Result: non-sensitizing
GLP: No information available.

Test Type: Buehler Test
Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: non-sensitizing
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:**

**Amorphous silicon dioxide:**

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Species: 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

: Test Type: In vitro gene mutation study in mammalian cells
Species: 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: Ames test
Species: Salmonella typhimurium
Concentration: 667 - 10000 µg/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Genotoxicity in vivo : Test Type: HGPRT 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 : It is concluded that the product is not mutagenic based on evaluation of several mutagenicity tests.

**C.I. Pigment Black 7:**

Genotoxicity in vitro : Test Type: Ames test
Species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

: Test Type: Ames test

Species: Escherichia coli
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Genotoxicity in vivo : Result: ambiguous

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

**C.I. Pigment White 6:**

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

: Test Type: Ames test
Species: 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 : It is concluded that the product is not mutagenic based on evaluation of several mutagenicity tests.

**Carcinogenicity**

**Components:**

**Amorphous silicon dioxide:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

**C.I. Pigment Black 7:**

Carcinogenicity - : Not classifiable as a human carcinogen.

Assessment

**C.I. Pigment White 6:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

**Reproductive toxicity**

**Components:**

**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 : 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 reproductive toxicity to be expected.
No teratogenic effects to be expected.

**C.I. Pigment Black 7:**

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

Effects on foetal development : Remarks: The study is not necessary from a scientific perspective.

Reproductive toxicity - Assessment : No reproductive toxicity to be expected.
No teratogenic effects to be expected.

**C.I. Pigment White 6:**

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

Effects on foetal development : Remarks: The study is not necessary from a scientific perspective.

Reproductive toxicity - : No reproductive toxicity to be expected.

Assessment No teratogenic effects to be expected.

**STOT - single exposure**

**Components:**

**Amorphous silicon dioxide:**

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

**C.I. Pigment Black 7:**

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:**

**Amorphous silicon dioxide:**

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

**C.I. Pigment Black 7:**

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

**Amorphous silicon dioxide:**

Species: Rat, male and female
NOAEL: 4,000 - 4,500 mg/kg
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: 0.0013 mg/l

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

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

**C.I. Pigment Black 7:**

Species: Rat, female
NOAEL: 52 mg/kg
Application Route: oral (feed)
Exposure time: 1 a - 2 a
Number of exposures: daily
Dose: 2,05 g/kg of chow diet
Group: yes
Method: Repeated Dose Toxicity (chronic Toxicity)
GLP: No information available.
Remarks: The product is non-toxic.

Species: Rat, male
NOAEL: 0.0011 mg/l
LOAEL: 0.0071 mg/l
Application Route: Inhalation
Exposure time: 13 w
Number of exposures: 6 h per day; 5 d per week
Dose: 1,1 - 7,1 - 52,8 mg/m3
Group: yes
Method: OECD Test Guideline 413
GLP: No information available.

Species: Mouse, male and female
Application Route: Skin contact
Exposure time: 12-18 m
Number of exposures: 3 times per week
Dose: 20% carbon black suspensions
Group: yes
Method: Repeated Dose Toxicity (chronic Toxicity)
GLP: no
Remarks: The product is non-toxic.

**C.I. Pigment White 6:**

Species: Rat, male
NOAEL: 24,000 mg/kg
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

Application Route: Skin contact
Remarks: The study is not necessary from a scientific perspective.

**Aspiration toxicity**

**Components:**

**Amorphous silicon dioxide:**

No aspiration toxicity classification

**C.I. Pigment Black 7:**

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).

**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:**

**Amorphous silicon dioxide:**

| | | |
|---|---|---|
| Toxicity to fish | : | LL0 (Brachydanio rerio (zebrafish)): 10,000 mg/l<br>Exposure time: 96 h<br>Test Type: static test<br>Analytical monitoring: no<br>Method: OECD Test Guideline 203<br>GLP: yes<br>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<br>Exposure time: 48 h<br>Test Type: static test<br>Analytical monitoring: no<br>Method: OECD Test Guideline 202<br>GLP: yes<br>Remarks: The details of the toxic effect relate to the nominal concentration. |
| Toxicity to algae | : | EL50 (Desmodesmus subspicatus (green algae)): > 10,000 mg/l<br>End point: Growth rate<br>Exposure time: 72 h<br>Test Type: static test<br>Analytical monitoring: no<br>Method: OECD Test Guideline 201<br>GLP: yes<br>Remarks: By analogy with a product of similar composition<br>The details of the toxic effect relate to the nominal concentration. |
| Toxicity to fish (Chronic toxicity) | : | Remarks: not required |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | Remarks: not required |
| Toxicity to microorganisms | : | GLP:<br>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 |

**C.I. Pigment Black 7:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC0 (Brachydanio rerio (zebrafish)): 1,000 mg/l<br>Exposure time: 96 h<br>Test Type: semi-static test<br>Analytical monitoring: no<br>Method: OECD Test Guideline 203<br>GLP: yes<br>Remarks: The details of the toxic effect relate to the nominal concentration. |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 5,600 mg/l<br>Exposure time: 24 h<br>Test Type: static test<br>Analytical monitoring: no<br>Method: OECD Test Guideline 202<br>GLP: yes<br>Remarks: The details of the toxic effect relate to the nominal concentration.<br><br>NOEC (Daphnia magna (Water flea)): 3,200 mg/l<br>Exposure time: 24 h<br>Test Type: static test<br>Analytical monitoring: no<br>Method: OECD Test Guideline 202<br>GLP: yes<br>Remarks: The details of the toxic effect relate to the nominal concentration. |
| Toxicity to algae | : | EC50 (Desmodesmus subspicatus (green algae)): > 10,000 mg/l<br>End point: Growth rate<br>Exposure time: 72 h<br>Test Type: static test<br>Analytical monitoring: no<br>Method: OECD Test Guideline 201<br>GLP: yes<br>Remarks: The details of the toxic effect relate to the nominal concentration.<br><br>NOEC (Desmodesmus subspicatus (green algae)): > 10,000 mg/l<br>End point: Growth rate<br>Exposure time: 72 h<br>Test Type: static test<br>Analytical monitoring: no<br>Method: OECD Test Guideline 201<br>GLP: yes<br>Remarks: The details of the toxic effect relate to the nominal concentration. |
| Toxicity to fish (Chronic toxicity) | : | Remarks: not reasonable |

| | | |
|---|---|---|
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | Remarks: not reasonable |
| Toxicity to microorganisms | : | EC0 (activated sludge, domestic): > 400 mg/l<br>Exposure time: 3 h<br>Test Type: static test<br>Analytical monitoring: no<br>Method: DEV L 3<br>GLP: no<br>Remarks: The details of the toxic effect relate to the nominal concentration. |
| Sediment toxicity | : | Remarks: Not applicable |

**C.I. Pigment White 6:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l<br>Exposure time: 96 h<br>Test Type: static test<br>Analytical monitoring: no<br>Method: EPA<br>GLP: yes<br>Remarks: The details of the toxic effect relate to the nominal concentration.<br><br>LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l<br>Exposure time: 96 h<br>Test Type: static test<br>Analytical monitoring: no<br>Method: OECD Test Guideline 203<br>GLP: No information available.<br>Remarks: The details of the toxic effect relate to the nominal concentration.<br><br>LC50 (Cyprinodon variegatus (sheepshead minnow)): > 10,000 mg/l<br>Exposure time: 96 h<br>Test Type: semi-static test<br>Analytical monitoring: no data available<br>Method: OECD Test Guideline 203<br>GLP: yes<br>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<br>Exposure time: 48 h<br>Test Type: static test<br>Analytical monitoring: no data available<br>Method: OECD Test Guideline 202<br>GLP: no data available<br>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 : 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
Analytical monitoring: yes
Method: Other
GLP: No information available.
Remarks: By analogy with a product of similar composition

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: Not applicable

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): >= 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 ->= 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 (Lactuca sativa (lettuce)): >= 10 %
Exposure time: 20 h
End point: Growth
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
Remarks: By analogy with a product of similar composition

NOEC: >= 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

Toxicity to terrestrial organisms : Remarks: Not applicable

**Persistence and degradability**

**Components:**

**Amorphous silicon dioxide:**

Biodegradability : Remarks: Not applicable

**C.I. Pigment Black 7:**

Biodegradability : Remarks: Not applicable

**C.I. Pigment White 6:**

Biodegradability : Remarks: Not applicable for inorganic compound.

**Bioaccumulative potential**

**Product:**

Bioaccumulation : Remarks: not tested.

**Components:**

**Amorphous silicon dioxide:**

Bioaccumulation : Remarks: Not applicable

**C.I. Pigment Black 7:**

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.

**Mobility in soil**

**Product:**

Distribution among environmental compartments : Remarks: not tested.

**Components:**

**Amorphous silicon dioxide:**

Distribution among environmental compartments : Remarks: Not applicable

**C.I. Pigment Black 7:**

Mobility : Remarks: Known distribution to environmental compartments

Distribution among environmental compartments : Adsorption/Soil
Medium: water - soil
Remarks: Not applicable

**C.I. Pigment White 6:**

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

Distribution among environmental compartments : Adsorption/Soil
Medium: water - soil
log Koc: 4.61
Method: Other

**Other adverse effects**

**Product:**

Results of PBT and vPvB assessment : Remarks: No information is available as no chemical safety report (CSR) is required.

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

**Components:**

**Amorphous silicon dioxide:**

Environmental fate and pathways : not available

Results of PBT and vPvB assessment : Remarks: Not relevant for inorganic substances

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

**C.I. Pigment Black 7:**

Environmental fate and pathways : not available

Results of PBT and vPvB assessment : The substance is not identified as a PBT or as a vPvB substance.

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

**C.I. Pigment White 6:**

Environmental fate and pathways : not available

Results of PBT and vPvB assessment : The substance is inorganic, thus a PBT and vPvB criteria assessment is not applicable according to Annex XIII of Regulation (EC) 1907/2006.

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** : Zinc 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**

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

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