Substance key: 000000693327	Revision Date: 07/13/2017
Version : 1 - 0 / CDN	Date of printing :07/25/2017

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:** Product Stewardship, +1-704-331-7710 e-mail: SDS.NORAM@clariant.com **Emergency tel. number:** +1 800-424-9300 CHEMTREC, +1 (703) 527-3887 INTERNATIONAL

Trade name:	**PVC 003.000% LT BROWN BK-113**
Material number:	CV83755007
Chemical family:	Colourant preparation 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)
C.I. Pigment Black 28	68186-91-4	1 - 2.5
Zinndioctyl-bis(thioglykolsäureisooctylester)	26401-97-8	1 - 2.5
Iron(III)oxide	1309-37-1	2.5 - 3
C.I. Pigment White 6	13463-67-7	3 - 5
Polyvinyl chloride	9002-86-2	40 - 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 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	:	In case of fire hazardous decomposition products may be

firefighting		produced such as: Hydrogen chloride Carbon monoxide Carbon dioxide (CO2) Metal 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. Protect from moisture. Keep away from direct sunlight.
Technical measures/Precautions	:	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 Black 28	68186-91-4	TWA	1 mg/m3 (Copper)	NIOSH REL
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
Iron(III)oxide	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
Polyvinyl chloride	9002-86-2	TWA (Respirable)	1 mg/m3	CA BC OEL
		TWAEV (total dust)	10 mg/m3	CA QC OEL
		TWA (Respirable fraction)	1 mg/m3	ACGIH
Zinndioctyl-	26401-97-8	TWA	0.1 mg/m3	CA AB OEL

bis(thioglykolsäureisooctylester)			(Tin)	
		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.
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.

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 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. 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 released into the atmosphere in sufficient concentration.
Incompatible materials	:	none Strong oxidizing agents
Hazardous decomposition products	:	When handled and stored appropriately, no dangerous decomposition products are known 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:

Iron(III)oxide:

Acute oral toxicity	:	LD50 (Rat, male): > 10,000 mg/kg Method: Other GLP: No information available.

Acute inhalation toxicity	:	LC0 (Rat, male): > 0.21 mg/l Exposure time: 14 d Method: OECD Test Guideline 412 GLP: yes
Acute dermal toxicity	:	Remarks: not reasonable
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

Polyvinyl chloride:

Acute oral toxicity	:	Remarks: Not relevant
Acute inhalation toxicity	:	Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	Remarks: Not relevant

Skin corrosion/irritation

Product:

Result: No skin irritation

Components:

Iron(III)oxide:

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

Polyvinyl chloride:

Remarks: This information is not available.

Serious eye damage/eye irritation

Product:

Result: No eye irritation

Components:

Iron(III)oxide:

Species: rabbit eye
Result: No eye irritation
Exposure time: 192 h
Method: OECD Test Guideline 405
GLP: yes

C.I. Pigment White 6:

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

Polyvinyl chloride:

Remarks: This information is not available.

Respiratory or skin sensitisation

Product:

Result: non-sensitizing

Components:

Iron(III)oxide:

Test Type: Maurer optimisation test
Exposure routes: Skin contact
Species: Guinea pig
Method: Other
Result: ambiguous
GLP: No information available.

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.

Polyvinyl chloride:

Exposure routes: Skin contact
Result: not known

Germ cell mutagenicity

Components:

Iron(III)oxide:

Genotoxicity in vitro : Test Type: Ames test
Species: Salmonella typhimurium
Concentration: 8 - 5000 µg/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: No information available.
Remarks: By analogy with a product of similar composition

: Test Type: HGPRT assay
Species: V79 cells (embryonic lung fibroblasts) of the Chinese hamster
Concentration: 6 - 36 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

: Test Type: Chromosome aberration test in vitro
Species: V79 cells (embryonic lung fibroblasts) of the Chinese hamster
Concentration: 6,25 - 25 µg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

GLP: yes
Remarks: By analogy with a product of similar composition

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Rat (male)
Strain: Sprague-Dawley
Application Route: oral (gavage)
Exposure time: 24 h
Dose: 3,75 mg/kg
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 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.

Polyvinyl chloride:

Genotoxicity in vitro : Remarks: Not applicable

Germ cell mutagenicity - Assessment : No information available.

Carcinogenicity

Components:

Iron(III)oxide:

Species: Rat, (male and female)
Application Route: oral (gavage)
Exposure time: 798 d
Dose: 10 - 40 mg/kg
Group: yes
Frequency of Treatment: every other week
Method: Other
GLP: No information available.
Remarks: Based on available data, the classification criteria are not met.

Species: Rat, (male and female)
Application Route: Intraperitoneal injection
Exposure time: 790 - 914 d
Dose: 200 mg/kg
Group: yes
Frequency of Treatment: 3 injections; every 8 weeks
Method: Other
GLP: No information available.
Remarks: Based on available data, the classification criteria are not met.

Carcinogenicity - Assessment : Carcinogenicity classification not possible from current data.

C.I. Pigment White 6:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Polyvinyl chloride:

Carcinogenicity - Assessment : No information available.

Reproductive toxicity

Components:

Iron(III)oxide:

Effects on fertility : Remarks: Not applicable

Effects on foetal development : Remarks: Not applicable

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

Polyvinyl chloride:

Effects on fertility	:	Remarks: This information is not available.
Effects on foetal development	:	Remarks: This information is not available.
Reproductive toxicity - Assessment	:	No information available. No information available.

STOT - single exposure

Components:

Iron(III)oxide:

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.

Polyvinyl chloride:

Remarks: no data available

STOT - repeated exposure

Components:

Iron(III)oxide:

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.

Polyvinyl chloride:

Remarks: no data available

Repeated dose toxicity

Components:

Iron(III)oxide:

Species: Rat, male
Application Route: oral (feed)
Exposure time: 21 d
Number of exposures: daily
Dose: 112,3 - 330,1 mg/100g diet
Group: yes
Method: Repeated Dose Toxicity (subacute study)
GLP: yes
Target Organs: Liver
Remarks: No adverse effect has been observed in chronic toxicity tests.

Species: Rat, male
Application Route: Inhalation
Exposure time: 2 w
Number of exposures: 6 hours/day, 5 days/week
Dose: 185,2- 195,7 - 210,2 mg/m3
Group: yes
Method: OECD Test Guideline 412
GLP: yes
Remarks: No adverse effect has been observed in chronic toxicity tests.

Application Route: Skin contact
Method: Repeated Dose Toxicity (subacute study)
Remarks: The study is not necessary from a scientific perspective.

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.

Polyvinyl chloride:
Remarks: This information is not available.

Aspiration toxicity

Components:

Iron(III)oxide:
No aspiration toxicity classification

C.I. Pigment White 6:
No aspiration toxicity classification

Polyvinyl chloride:
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:

Iron(III)oxide:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): approx. 100,000 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: no data available
Method: Umweltbundesamt, 1984
GLP: no
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 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.
Toxicity to algae	:	Exposure time: Remarks: not reasonable
Toxicity to fish (Chronic toxicity)	:	Remarks: not reasonable
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	Remarks: not reasonable
Toxicity to microorganisms	:	EC50 (activated sludge of a predominantly domestic sewage): > 10,000 mg/l End point: Bacteria toxicity (respiration inhibition) Exposure time: 3 h Test Type: aquatic Method: ISO 8192
Toxicity to soil dwelling organisms	:	Remarks: The study is not necessary from a scientific perspective.
Plant toxicity	:	(other terrestrial plant): Remarks: The study is not necessary from a scientific perspective.
Sediment toxicity	:	Remarks: The study is not necessary from a scientific perspective.
Toxicity to terrestrial organisms	:	Remarks: The study is not necessary from a scientific perspective.

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

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 : 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

Polyvinyl chloride:

Toxicity to fish : no toxicity, except ingestion
Remarks: Not applicable

Toxicity to daphnia and other aquatic invertebrates : Remarks: Not applicable

Toxicity to algae : Remarks: Not applicable

Toxicity to fish (Chronic toxicity) : no toxicity, except ingestion
Remarks: Not applicable

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

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 : no toxicity, except ingestion
Remarks: Not applicable

Persistence and degradability

Components:

Iron(III)oxide:

Biodegradability : Remarks: Not applicable for inorganic compound.

Physico-chemical : Remarks: Inorganic product, cannot be eliminated from the

removability water by biological purification processes.

C.I. Pigment White 6:

Biodegradability : Remarks: Not applicable for inorganic compound.

Polyvinyl chloride:

Biodegradability : Result: Not readily biodegradable.
Remarks: The polymer is too large to be bioavailable.
Not applicable due to insolubility in water. This product does not come into contact with the effluent when it is used for its purpose, otherwise it can be removed by filtration operations.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: not tested.

Components:

Iron(III)oxide:

Bioaccumulation : Remarks: Not relevant for inorganic substances

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.

Polyvinyl chloride:

Bioaccumulation : Remarks: Not applicable

Mobility in soil

Product:

Distribution among environmental compartments : Remarks: not tested.

Components:

Iron(III)oxide:

Mobility : Remarks: Known distribution to environmental compartments

Distribution among environmental compartments : 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

Polyvinyl chloride:

Distribution among environmental compartments	:	Remarks: The product is insoluble and sinks in water.

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:

Iron(III)oxide:

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.

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.

Polyvinyl chloride:

Environmental fate and pathways	:	no data available
Results of PBT and vPvB assessment	:	Remarks: Not applicable
Additional ecological information	:	Has not been tested due to insolubility in 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
Chromium (III) compound
Copper Compound

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

Revision Date : 07/13/2017

This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. Clariant makes no warranties, express or implied, as to the information’s accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of Clariant's products for its particular application. NO EXPRESS OR IMPLIED WARRANTY IS MADE OF THE MERCHANTABILITY, SUITABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE OF ANY PRODUCT OR SERVICE. Nothing included in this information waives any of Clariant’s General Terms and Conditions of Sale, which control unless it agrees otherwise in writing. Any existing intellectual/industrial property rights must be observed. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could 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.

CA / EN