

PVC 8245 003.000% BROWN BK-105

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Substance key: 000000792552

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SECTION 1. IDENTIFICATION

Identification of the company:

Clariant Plastics & Coating USA LLC
4000 Monroe Road
Charlotte, NC, 28205
Telephone No.: +1 704 331 7000

Information of the substance/preparation:

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

Emergency tel. number: 800-424-9300 (CHEMTREC)**Trade name:****PVC 8245 003.000% BROWN BK-105****Material number:**

CV83755010

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

Components

Chemical name	CAS-No.	Concentration (% w/w)
C.I. Pigment Black 28	68186-91-4	1 - 5
Iron(III)oxide	1309-37-1	1 - 5
Di-n-octyltin-bis-(2-ethylhexylthioglycolate)	15571-58-1	1 - 5
Polyvinyl chloride	9002-86-2	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-

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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 firefighting | : | In case of fire hazardous decomposition products may be produced such as:
Hydrogen chloride |

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Carbon monoxide
Carbon dioxide (CO₂)

- 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.

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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 Black 28	68186-91-4	TWA	1 mg/m ³ (Copper)	NIOSH REL
Iron(III)oxide	1309-37-1	TWA (Respirable)	5 mg/m ³	CA AB OEL
		TWA (Fumes)	5 mg/m ³ (Iron)	CA BC OEL
		TWA (Dust)	5 mg/m ³ (Iron)	CA BC OEL
		STEL (Fumes)	10 mg/m ³ (Iron)	CA BC OEL
		TWAEV (fume and dust)	5 mg/m ³ (Iron)	CA QC OEL
		TWA (Respirable fraction)	5 mg/m ³	ACGIH
Polyvinyl chloride	9002-86-2	TWA (Respirable)	1 mg/m ³	CA BC OEL
		TWAEV (total dust)	10 mg/m ³	CA QC OEL
		TWA (Respirable fraction)	1 mg/m ³	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

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	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	: 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 / upper flammability limit	: not tested.
Lower explosion limit / Lower flammability limit	: not tested.
Vapour pressure	: Not applicable

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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

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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: no data available

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

Di-n-octyltin-bis-(2-ethylhexylthioglycolate):

Acute oral toxicity : LD50 (Rat, male and female): 2,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute inhalation toxicity : Remarks: Not applicable

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes

Polyvinyl chloride:

Acute oral toxicity : Remarks: Not relevant

Acute inhalation toxicity : Assessment: The substance or mixture has no acute

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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

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

Di-n-octyltin-bis-(2-ethylhexylthioglycolate):

Species: rabbit eye

Result: non-irritant

Exposure time: 96 h

Method: OECD Test Guideline 405

GLP: yes

Polyvinyl chloride:

Remarks: This information is not available.

Respiratory or skin sensitisation**Product:**

Result: non-sensitizing

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Components:**Iron(III)oxide:**

Test Type: Maurer optimisation test

Exposure routes: Skin contact

Species: Guinea pig

Method: Other

Result: Not a skin sensitizer.

GLP: No information available.

Di-n-octyltin-bis-(2-ethylhexylthioglycolate):

Test Type: Guinea pig maximization test

Exposure routes: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: May cause sensitisation by skin contact.

GLP: yes

Polyvinyl chloride:

Exposure routes: Skin contact

Result: not known

Germ cell mutagenicity**Components:****Iron(III)oxide:**

Genotoxicity in vitro

: Test Type: Ames test

Test system: 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

Test system: 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

Test system: V79 cells (embryonic lung fibroblasts) of the Chinese hamster

Concentration: 6,25 - 25 µg/ml

Metabolic activation: with and without metabolic activation

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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.

Di-n-octyltin-bis-(2-ethylhexylthioglycolate):

Genotoxicity in vitro

: Test Type: In vitro gene mutation study in mammalian cells
Test system: mouse lymphoma cells
Concentration: 0,006 - 100 µg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes

Test Type: Ames test

Test system: Salmonella typhimurium

Concentration: 150 - 12150 µg/ml

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

GLP: no

Genotoxicity in vivo

: Test Type: Chromosome Aberration Test
Species: Mouse (male and female)
Cell type: Bone marrow cells
Application Route: oral (gavage)
Exposure time: 30 h
Dose: 2250 - 4500 - 9000 mg/kg
Method: OECD Test Guideline 474
Result: negative
GLP: No information available.
Test substance: other TS

Test Type: Chromosome Aberration Test

Species: Mouse (male and female)

Strain: CD1

Cell type: Bone marrow cells

Application Route: oral (gavage)

Exposure time: 72 h

Dose: 2250 - 4500 - 9000 mg/kg

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Method: OECD Test Guideline 474

Result: negative

GLP: No information available.

Test substance: other TS

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.

Di-n-octyltin-bis-(2-ethylhexylthioglycolate):

Carcinogenicity - Assessment : No information available.

Polyvinyl chloride:

Carcinogenicity - Assessment : No information available.

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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.

Di-n-octyltin-bis-(2-ethylhexylthioglycolate):

- Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Strain: Sprague-Dawley
Application Route: oral (feed)
Dose: 20 - 60 -200 ppm
General Toxicity - Parent: NOAEL: ca. 1.6 mg/kg body weight
General Toxicity F1: NOAEL: 1.6 mg/kg body weight
Method: OECD Test Guideline 416
GLP: yes
Remarks: By analogy with a product of similar composition
- Effects on foetal development : Species: Rabbit
Strain: New Zealand white
Application Route: oral (gavage)
Dose: 4 - 20 - 80 mg/kg
General Toxicity Maternal: NOAEL: 20 mg/kg body weight
Teratogenicity: NOAEL: 80 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes
- Reproductive toxicity - Assessment : Clear evidence of adverse effects on development, based on animal experiments.
Classification as "teratogenic" is not justifiable.

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

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exposure.

Di-n-octyltin-bis-(2-ethylhexylthioglycolate):

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.

Di-n-octyltin-bis-(2-ethylhexylthioglycolate):

Assessment: Causes damage to organs through prolonged or 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)

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

Di-n-octyltin-bis-(2-ethylhexylthioglycolate):

Species: Rat, male and female

NOAEL: 0.5 mg/kg

Application Route: oral (feed)

Exposure time: 90 d

Number of exposures: daily

Dose: 10-25-50-100-250-500-1000 ppm

Group: yes

Method: OECD Test Guideline 408

GLP: no

Polyvinyl chloride:

Remarks: This information is not available.

Aspiration toxicity**Components:****Iron(III)oxide:**

No aspiration toxicity classification

Di-n-octyltin-bis-(2-ethylhexylthioglycolate):

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).

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

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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/aquatic plants : Exposure time:
Remarks: no data available

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
GLP: no

Toxicity to soil dwelling organisms : Remarks: The study is not necessary from a scientific perspective.

Plant toxicity : 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.

Di-n-octyltin-bis-(2-ethylhexylthioglycolate):

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 24 mg/l
Exposure time: 96 h
Test Type: semi-static test
Analytical monitoring: yes
Method: OECD Test Guideline 203
GLP: yes

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Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.17 mg/l Exposure time: 48 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 0.17 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: Directive 87/302/EEC, part C, p. 89 GLP: yes NOEC (Desmodesmus subspicatus (green algae)): 0.04 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes
M-Factor (Acute aquatic toxicity)	:	1
Toxicity to fish (Chronic toxicity)	:	Remarks: not required
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0.286 mg/l Exposure time: 21 d Test Type: semi-static test Analytical monitoring: yes Method: OECD Test Guideline 211 GLP: yes
M-Factor (Chronic aquatic toxicity)	:	1
Toxicity to microorganisms	:	EC50 (activated sludge): > 100 mg/l End point: Bacteria toxicity (respiration inhibition) Exposure time: 3 h Test Type: aquatic Analytical monitoring: no Method: Directive 87/302/EEC, part C, p. 118 GLP: yes Remarks: The details of the toxic effect relate to the nominal concentration.
Toxicity to soil dwelling organisms	:	Remarks: Not applicable
Plant toxicity	:	Remarks: Not applicable

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Sediment toxicity : Remarks: Not applicable

Toxicity to terrestrial organisms : Remarks: Not applicable

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Remarks: Not applicable

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

Toxicity to algae/aquatic plants : 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 removability : Remarks: Not applicable

Di-n-octyltin-bis-(2-ethylhexylthioglycolate):Biodegradability : aerobic
Inoculum: activated sludge
Concentration: 50 mg/l
Biochemical Oxygen Demand (BOD)
Result: Not readily biodegradable.
Biodegradation: 30 - 40 %

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Exposure time: 28 d
Method: OECD Test Guideline 301F
GLP: yes

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: Does not accumulate in organisms.

Di-n-octyltin-bis-(2-ethylhexylthioglycolate):

Bioaccumulation : Species: Oncorhynchus mykiss (rainbow trout)
Bioconcentration factor (BCF): 99 - 1,294
Exposure time: 30 d
Concentration: DOT: 0,25 - 2,5 µg/l
Method: OECD Guide-line 305 B
GLP: yes

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

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Distribution among environmental compartments : Remarks: Not applicable

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 not identified as a PBT or as a vPvB substance.

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

Di-n-octyltin-bis-(2-ethylhexylthioglycolate):

Environmental fate and pathways : not available

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.

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.

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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

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**

- 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
- NIOSH REL : USA. NIOSH Recommended Exposure Limits
- 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 BC OEL / STEL : short-term exposure limit
- CA QC OEL / TWAEV : Time-weighted average exposure value
- NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek

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%

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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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