

ABS GP35 004.000% TAN 4997B

Page 1

Substance key: 000000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023

SECTION 1. IDENTIFICATION

Identification of the	Avient Colorants Canada Inc.				
company:	2 Lone Oak Court				
	Toronto, Ontario, M9C 5R9				
	Telephone No.: +1 514-832-2559				
	Information of the substance/preparation:				
	Product Stewardship				
	e-mail: SDS.NORAMMB@avient.com				
	Emergency tel. number: +1 CANUTEC (613) 996-6666				
Trade name: Material number:	ABS GP35 004.000% TAN 4997B SB24765604				

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: ABS

Components

Chemical name	CAS-No.	Concentration (% w/w)
C.I. Pigment Black 28	68186-91-4	0.1 - 1
Aluminium oxide	1344-28-1	0.1 - 1
N,N'-Ethylenedi(stearamide)	110-30-5	1 - 5
Iron(III)oxide	1309-37-1	1 - 5
C.I. Pigment White 6	13463-67-7	10 - 30

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



ABS GP35 004.000% TAN 4997B

Page 2

Substance key: 000000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023

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 contacts 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: Styrene Hydrogen cyanide (hydrocyanic acid) Acrylonitrile



ABS GP35 004.000% TAN 4997B

Page 3

Substance key: 000000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023
	Carbon monoxide Carbon dioxide (CO2) Take measures to prevent the build up of electrostatic charge. Dust can form an explosive mixture in air. Metal oxides Zinc oxide
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.



ABS GP35 004.000% TAN 4997B

Page 4

Substance key: 000000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023
	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.
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
N,N'-Ethylenedi(stearamide)	110-30-5	TWA	10 mg/m3	CA AB OEL
		TWA	10 mg/m3	CA BC OEL
		TWA (Inhalable particulate matter)	10 mg/m3	ACGIH
		TWA (Respirable particulate matter)	3 mg/m3	ACGIH
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
		TWÁ (Respirable particulate matter)	5 mg/m3	ACGIH
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	3 mg/m3	CA BC OEL



ABS GP35 004.000% TAN 4997B

Page 5

Substance key: 000000653111
Version : 1 - 1 / CDN

Revision Date: 09/26/2020 Date of printing :03/08/2023

			dust fraction)		1
			TWAEV	10 mg/m3	CA QC OEL
			(total dust)		
Aluminium oxide		1344-28-1	TWA	10 mg/m3	CA AB OEL
			TWAEV	10 mg/m3	CA QC OEL
			(total dust)	(Aluminium)	
			TWA (Respirable)	1 mg/m3 (Aluminium)	CA BC OEL
			TWA	1 mg/m3	ACGIH
			(Respirable	(Aluminium)	ACOIT
			particulate	(/ darminani)	
			matter)		
Engineering measures	:	ventilation. Provide appropriate appropris	opriate exhaust v dust can be ger ing controls such	n appropriate exhaus ventilation at machine herated. In as local or general ons below exposure	ery and at exhaust to
Personal protective equipm	nent				
Respiratory protection	:	manufacturer generated. Use respirato	's recommendati	respirators following ons where dust or fu ipment when using t section 8).	ime may be
Hand protection					
Remarks	:		ves When handl	bus butyl rubber glov ing hot material, use	
Eye protection	:	Safety glasse	es with side-shiel	ds	
Skin and body protection	:	to prevent sk	in contact.	iding long sleeves ar suitable protective c	-
Hygiene measures	:	during work, the handling	in particular: do r	precautions must be not drink, eat or smol id clean hands and f	ke during

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Granules
Colour	:	orange
Odour	:	characteristic

ABS GP35 004.000% TAN 4997B

stance key: 000000653111 sion : 1 - 1 / CDN		Revision Date: 09/26/20 Date of printing:03/08/20
Odour Threshold	:	Not applicable
рН	:	Not applicable
Melting point	:	> 90 °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
Relative vapour density	:	Not applicable
Relative density	:	not available
Density	:	not tested.
Solubility(ies) Water solubility	:	insoluble
Partition coefficient: n- octanol/water	:	This property is not applicable for mixtures.
Decomposition temperature	:	To the best of our current knowledge, no thermal decomposition of the product is expected if it is processed according to good manufacturing practices. See section 10.4. "Conditions to avoid"
Viscosity Viscosity, dynamic	:	Not applicable
Viscosity, kinematic	:	Not applicable
Explosive properties	:	no data available no data available
Oxidizing properties	:	not available



ABS GP35 004.000% TAN 4997B

Page 7

AVIENT

Substance key: 000000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023
Surface tension :	Not relevant
Particle size :	Product specific
SECTION 10. STABILITY AND READ	СТІVІТҮ
Reactivity :	No dangerous reaction known under conditions of normal use.
Chemical stability :	Stable
Possibility of hazardous : reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid :	To avoid thermal decomposition, do not overheat. Heating can release hazardous gases. Keep away from heat, sparks, open flames, and other sources of ignition. If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Keep away from heat and sources of ignition.
Incompatible materials :	no data available Strong acids and strong bases Strong acids and oxidizing agents
Hazardous decomposition : products	No hazardous decomposition products if stored and handled as prescribed

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

None known.

Acute toxicity

Product:

Acute inhalation toxicity	:	Acute toxicity estimate: 48.56 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: 3,868 mg/kg Method: Calculation method
<u>Components:</u> Aluminium oxide:		

Aluminum oxide.		
Acute oral toxicity	: LD50 (Rat, male and female): > 10,000 mg/kg	



ABS GP35 004.000% TAN 4997B

ostance key: 000000653111		Revision Date: 09/26/202
sion : 1 - 1 / CDN		Date of printing :03/08/202
		Method: OECD Test Guideline 401 GLP: No information available.
Acute inhalation toxicity	:	LC50 (Rat, male and female): > 2.3 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 GLP: yes Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	Remarks: Not applicable
N,N'-Ethylenedi(stearamide)	:	
Acute oral toxicity	:	LD50 (Rat, male and female): > 5,000 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	:	LC50 (Rat, male and female): > 6.3 mg/l Test atmosphere: dust/mist Method: OECD Test Guideline 403
Acute dermal toxicity	:	LD50 (Rabbit, male and female): > 2,000 mg/kg Method: OECD Test Guideline 402
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
C.I. Pigment White 6:		
Acute oral toxicity	:	LD50 (Rat, female): > 5,000 mg/kg Method: OECD Test Guideline 425 GLP: no
Acute inhalation toxicity	:	LC50 (Rat, male and female): 3.4 - 5.1 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 GLP: no Assessment: The substance or mixture has no acute inhalation toxicity

AVIENT

ABS GP35 004.000% TAN 4997B

Page 9

ostance key: 000000653111	Revision Date: 09/26/202
sion : 1 - 1 / CDN	Date of printing :03/08/202
Acute dermal toxicity :	Assessment: The substance or mixture has no acute dermal toxicity Remarks: not required
Skin corrosion/irritation	
Product:	
Result: No skin irritation	
<u>Components:</u>	
Aluminium oxide:	
Species: Rabbit Exposure time: 24 h Method: OECD Test Guideline 40 Result: No skin irritation GLP: No information available.	4
N,N'-Ethylenedi(stearamide):	
Species: Rabbit Method: OECD Test Guideline 40 Result: No skin irritation	4
Iron(III)oxide:	
Species: Rabbit	
Exposure time: 4 h	4
Method: OECD Test Guideline 40 Result: No skin irritation	4
GLP: yes	
C.I. Pigment White 6:	
Species: Rabbit	
Exposure time: 4 h Method: OECD Test Guideline 404	4
Result: No skin irritation	
GLP: no	
Serious eye damage/eye irritatio	วท
Product:	
Result: No eye irritation	
Components:	
Aluminium oxide:	
Result: Mild eye irritation	

N,N'-Ethylenedi(stearamide):

Species: Rabbit Result: No eye irritation

ABS GP35 004.000% TAN 4997B

Substance key: 000000653111 Version : 1 - 1 / CDN

Method: OECD Test Guideline 405

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: No eye irritation Method: OECD Test Guideline 405 GLP: No information available.

Respiratory or skin sensitisation

Product:

Result: non-sensitizing

Components:

Aluminium oxide:

Test Type: Draize Test Exposure routes: Dermal Species: Guinea pig Method: Draize Test Result: Not a skin sensitizer. GLP: no

Test Type: Respiratory system Exposure routes: inhalation (dust/mist/fume) Species: Mouse Method: Other Result: Not a skin sensitizer. GLP: no

N,N'-Ethylenedi(stearamide):

Species: Mouse Method: OECD Test Guideline 429 Result: Not a skin sensitizer.

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.

AVIENT

Page 10

Revision Date: 09/26/2020

Date of printing :03/08/2023



ABS GP35 004.000% TAN 4997B

Page 11

Substance key: 00000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023

C.I. Pigment White 6:

Test Type: Local lymph node assay (LLNA) Exposure routes: Dermal Species: Mouse Method: OECD Test Guideline 429 Result: Not a skin sensitizer. GLP: No information available.

Test Type: Buehler Test Exposure routes: Dermal Species: Guinea pig Method: OECD Test Guideline 406 Result: Not a skin sensitizer. GLP: yes

Test Type: Respiratory system Exposure routes: inhalation (dust/mist/fume) Species: Mouse Method: Other Result: Does not cause respiratory sensitisation. GLP: No information available.

Germ cell mutagenicity

Components:

Aluminium oxide:

Genotoxicity in vitro	 Test Type: In vitro gene mutation study in mammalian cells Test system: mouse lymphoma cells Concentration: 6,1 - 780 μg/ml Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative GLP: yes Remarks: By analogy with a product of similar composition
Genotoxicity in vivo	 Test Type: Chromosome Aberration Test Species: Rat (female) Strain: wistar Cell type: Bone marrow Application Route: oral (gavage) Exposure time: Single exposure Dose: 500 - 1000 - 2000 mg/kg Method: OECD Test Guideline 475 Result: positive GLP: No information available.
	Test Type: Micronucleus test Species: Rat (female) Strain: wistar Cell type: Bone marrow Application Route: oral (gavage) Exposure time: Single exposure Dose: 500 - 1000 - 2000 mg/kg



ABS GP35 004.000% TAN 4997B

ostance key: 000000653111	Revision Date: 09/26/2
sion : 1 - 1 / CDN	Date of printing :03/08/2
	Method: OECD Test Guideline 474 Result: positive GLP: No information available.
Germ cell mutagenicity - Assessment	: Weight of evidence does not support classification as a gerr cell mutagen.
N,N'-Ethylenedi(stearamide):
Genotoxicity in vitro	 Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
	Test Type: Chromosome aberration test in vitro Test system: Chinese hamster lung cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative
	Test Type: Mammalian cell gene mutation assay Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative
Germ cell mutagenicity - Assessment	: In vitro tests did not show mutagenic effects
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



ABS GP35 004.000% TAN 4997B

Substance key: 000000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023
	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 Test system: 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 Test system: Escherichia coli Concentration: 333 - 5000 μg/plate Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: yes
Genotoxicity in vivo :	Test Type: Micronucleus test Species: Mouse (male and female) Strain: ICR Cell type: Erythrocytes Application Route: oral (gavage) Exposure time: single treatment Dose: 500 - 1000 - 2000 mg/kg Method: OECD Test Guideline 474 Result: negative GLP: yes
Germ cell mutagenicity - : Assessment	In vitro tests did not show mutagenic effects, In vivo tests did not show mutagenic effects



ABS GP35 004.000% TAN 4997B

Substance key: 000000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023
Carcinogenicity	
Components:	
Aluminium oxide:	
Carcinogenicity - : Assessment	Carcinogenicity classification not possible from current data.
N,N'-Ethylenedi(stearamide):	
Carcinogenicity - : Assessment	No information available.
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 ot Method: Other GLP: No information available. Remarks: Based on available dat	ther week a, the classification criteria are not met.
Species: Rat, (male and female) Application Route: Intraperitoneal Exposure time: 790 - 914 d Dose: 200 mg/kg Group: yes Frequency of Treatment: 3 injection Method: Other	
GLP: No information available.	a, 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.
Reproductive toxicity	
Components:	
Aluminium oxide:	
Effects on fertility :	Species: Rat, male and female Strain: Sprague-Dawley Application Route: Drinking water Dose: 57 - 189 - 567 mg/kg General Toxicity - Parent: NOAEL: ca. 567 mg/kg body weight General Toxicity F1: NOAEL: ca. 57 mg/kg body weight Method: Other GLP: yes



ABS GP35 004.000% TAN 4997B

Substance key: 000000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023
	Remarks: By analogy with a product of similar composition
Effects on foetal : development	Species: Rat Strain: wistar Application Route: oral (gavage) Dose: 126 - 251 - 503 mg/kg Frequency of Treatment: 2 daily General Toxicity Maternal: NOAEL: > 100 mg/kg body weight Teratogenicity: NOAEL: 503 mg/kg body weight Method: OECD Test Guideline 414 GLP: No information available. Remarks: By analogy with a product of similar composition
Reproductive toxicity - : Assessment	No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments. No teratogenic effects to be expected.
N,N'-Ethylenedi(stearamide):	
Effects on foetal : development	Test Type: Pre-natal Species: Rat Strain: Sprague-Dawley Application Route: oral (gavage) General Toxicity Maternal: NOAEL: >= 1,000 mg/kg body weight Method: OECD Test Guideline 414
Reproductive toxicity - : Assessment	No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.
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: no data available
Effects on foetal : development	Test Type: Pre-natal Species: Rat, female Strain: wistar Application Route: oral (gavage) Dose: 100, 300, 1000 mg/kg bw Duration of Single Treatment: 14 d Frequency of Treatment: 1 daily General Toxicity Maternal: NOAEL: 1,000 mg/kg body weight Developmental Toxicity: NOAEL: 1,000 mg/kg body weight Embryo-foetal toxicity: NOEL: 1,000 mg/kg body weight Method: OECD Test Guideline 414



ABS GP35 004.000% TAN 4997B

Page 16

Substance key: 000000653111	Revision Date: 09/26/2020	
Version : 1 - 1 / CDN	Date of printing :03/08/2023	
	GLP: yes Remarks: No significant adverse effects were reported	
Reproductive toxicity - : Assessment	No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments. Did not show teratogenic effects in animal experiments.	

STOT - single exposure

Components:

Aluminium oxide:

Target Organs: Lungs

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

N,N'-Ethylenedi(stearamide):

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

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.

STOT - repeated exposure

Components:

Aluminium oxide:

Target Organs: Lungs

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

N,N'-Ethylenedi(stearamide):

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

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.



ABS GP35 004.000% TAN 4997B

Page 17

Substance key: 000000653111
Version : 1 - 1 / CDN

Revision Date: 09/26/2020 Date of printing :03/08/2023

Repeated dose toxicity

Components:

Aluminium oxide:

Species: Rat, male and female NOAEL: 57 mg/kg Application Route: Drinking water Exposure time: 1 a Number of exposures: continuously Dose: 57 - 189 - 567 mg/kg Group: yes Method: OECD Test Guideline 426 GLP: yes Remarks: By analogy with a product of similar composition

Species: Rat LOAEL: 0.070 mg/l Application Route: Inhalation Exposure time: 6 m Number of exposures: 6 hr/day; 5 days a week Dose: 15-30-50-70-100 mg Al/m3 Method: OECD Test Guideline 413 GLP: No information available.

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

N,N'-Ethylenedi(stearamide):

Species: Rat, male and female NOEL: >= 1000 mg/kg bw/day Application Route: oral (gavage) Method: OECD Test Guideline 408

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



ABS GP35 004.000% TAN 4997B

Page 18

Substance key: 000000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023

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

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

Aspiration toxicity

Components:

Aluminium oxide:

No aspiration toxicity classification

N,N'-Ethylenedi(stearamide):

no data available

Iron(III)oxide:

No aspiration toxicity classification

C.I. Pigment White 6:

No aspiration toxicity classification

Experience with human exposure

5

Product:

General Information

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

ABS GP35 004.000% TAN 4997B



Page 19

Substance key: 000000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023

Further information

Components:

C.I. Pigment White 6:

Remarks: Lung damage possible.

SECTION 12. ECOLOGICAL INFORMATION

:

Ecotoxicity

Product:

Toxicity to fish

Remarks:	no	data	available

Components:

Aluminium oxide:		
Toxicity to fish	:	NOEC (Salmo trutta (brown trout)): > 0.072 mg/l Exposure time: 96 h Test Type: semi-static test Analytical monitoring: yes Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	:	NOEC (Daphnia magna (Water flea)): > 0.071 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	:	NOEC (Pseudokirchneriella subcapitata (green algae)): >= 0.052 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes
		EC50 (Pseudokirchneriella subcapitata (green algae)): 1.05 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes Remarks: By analogy with a product of similar composition
Toxicity to fish (Chronic toxicity)	:	NOEC (Pimephales promelas (fathead minnow)): 56.48 mg/l Exposure time: 7 d Test Type: semi-static test



ABS GP35 004.000% TAN 4997B

stance key: 000000653111		Revision Date: 09/26/20
sion : 1 - 1 / CDN		Date of printing :03/08/20
		Analytical monitoring: yes Method: Other GLP: yes Remarks: By analogy with a product of similar composition
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0.076 mg/l End point: Reproduction rate Exposure time: 21 d Test Type: semi-static test Analytical monitoring: yes Method: OECD Test Guideline 211 GLP: yes Remarks: By analogy with a product of similar composition
Toxicity to microorganisms	:	Remarks: Not applicable
Toxicity to soil dwelling organisms	:	Remarks: Not applicable
Plant toxicity	:	Remarks: Not applicable
Sediment toxicity	:	Remarks: Not applicable
Toxicity to terrestrial organisms	:	Remarks: Not applicable
Ecotoxicology Assessment Acute aquatic toxicity	:	This product has no known ecotoxicological effects.
Chronic aquatic toxicity	:	This product has no known ecotoxicological effects.
N,N'-Ethylenedi(stearamide)	-	
Toxicity to fish	:	LC50 (Oryzias latipes (Orange-red killifish)): 0.027 mg/l End point: mortality Exposure time: 96 h Method: OECD Test Guideline 203 Remarks: No toxicity at the limit of solubility
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.0022 mg/l Exposure time: 48 h Test Type: semi-static test Method: OECD Test Guideline 202 Remarks: No toxicity at the limit of solubility
Toxicity to algae/aquatic plants	:	NOEC (Pseudokirchneriella subcapitata (algae)): 0.053 mg/ Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: No toxicity at the limit of solubility
Toxicity to fish (Chronic toxicity)	:	Remarks: no data available
Toxicity to daphnia and other	:	EC50 (Daphnia magna (Water flea)): 0.0056 mg/l



ABS GP35 004.000% TAN 4997B

Substance key: 000000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023
aquatic invertebrates (Chronic toxicity)	Exposure time: 21 d Method: OECD Test Guideline 211 Remarks: No toxicity at the limit of solubility
Toxicity to microorganisms	 EC50 (activated sludge): > 1,000 mg/l Exposure time: 3 h Test Type: static test Method: OECD Test Guideline 209
Toxicity to soil dwelling organisms	 NOEC (Eisenia fetida (earthworms)): >= 1,000 mg/kg Exposure time: 56 d Method: OECD Test Guideline 222
Sediment toxicity	 NOEC: >= 1000 mg/kg dry weight (d.w.) Test Type: static test Sediment: Artificial sediment Exposure duration: 28 d Method: OECD Test Guideline 218
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/aquatic plants	: 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



ABS GP35 004.000% TAN 4997B

bstance key: 000000653111	1	Revision Date: 09/26/2020
rsion : 1 - 1 / CDN		Date of printing :03/08/2023
		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.
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.



ABS GP35 004.000% TAN 4997B

Substance key: 000000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023
	LC50 (Acartia tonsa): > 10,000 mg/l Exposure time: 48 h Analytical monitoring: no data available Method: ISO 14669 and PARCOM method GLP: yes Remarks: The details of the toxic effect relate to the nominal concentration.
Toxicity to algae/aquatic : plants	EC50 (Pseudokirchneriella subcapitata (microalgae)): 61 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Analytical monitoring: no Method: EPA GLP: No information available. Remarks: The details of the toxic effect relate to the nominal concentration.
	EC50 (Skeletonema costatum (marine diatom)): > 10,000 mg/l End point: Growth rate Exposure time: 72 h Analytical monitoring: no data available Method: ISO 10253 GLP: yes Remarks: The details of the toxic effect relate to the nominal concentration.
Toxicity to fish (Chronic : toxicity)	LC50 (Oncorhynchus mykiss (rainbow trout)): 7.31 mg/l Exposure time: 28 d Test Type: static test Analytical monitoring: yes Method: Other GLP: No information available. Remarks: By analogy with a product of similar composition
Toxicity to microorganisms :	EC50 (activated sludge of a predominantly domestic sewage): > 1,000 mg/l End point: Bacteria toxicity (respiration inhibition) Exposure time: 3 h Test Type: aquatic Method: OECD Test Guideline 209 GLP: yes Remarks: The details of the toxic effect relate to the nominal concentration.
	NOEC (activated sludge of a predominantly domestic sewage): >= 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.



ABS GP35 004.000% TAN 4997B

bstance key: 000000653111	Revision Date: 09/26/2020
ersion : 1 - 1 / CDN	Date of printing :03/08/2023
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: >= 10 % Exposure time: 20 h End point: Growth Species: Lactuca sativa (lettuce) Analytical monitoring: yes Method: Other GLP: no Remarks: By analogy with a product of similar composition No effect on the growth was observed.
Sediment toxicity :	NOEC (Hyalella azteca (Scud)): >= 100000 % Analytical monitoring: no Sediment: artificial soil Exposure duration: 28 d Nominal / Measured: nominal Basis for effect: mortality Method: Other GLP: no 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
Ecotoxicology Assessment Chronic aquatic toxicity :	This product has no known ecotoxicological effects.
Persistence and degradability <u>Components:</u>	
Aluminium oxide: Biodegradability :	Remarks: Not applicable
N,N'-Ethylenedi(stearamide): Biodegradability :	aerobic Inoculum: activated sludge



ABS GP35 004.000% TAN 4997B

ostance key: 0000006531	
sion : 1 - 1 / CDN	Date of printing :03/08/2
	Carbon dioxide (CO2) Result: Not readily biodegradable. Biodegradation: 5.5 % Exposure time: 28 d Method: OECD Test Guideline 301B
Iron(III)oxide:	
Biodegradability	: Remarks: Not applicable for inorganic compound.
Physico-chemical removability	: Remarks: Not applicable
C.I. Pigment White 6:	
Biodegradability	: Remarks: Not applicable for inorganic compound.
Bioaccumulative potentia	I
Product:	
Bioaccumulation	: Remarks: not tested.
Components:	
Aluminium oxide:	
Bioaccumulation	: Remarks: Not applicable
N,N'-Ethylenedi(stearamid	de):
Bioaccumulation	: Remarks: Bioaccumulation is unlikely.
Partition coefficient: n- octanol/water	: Remarks: Not applicable
Iron(III)oxide:	
Bioaccumulation	: Remarks: Does not accumulate in organisms.
C.I. Pigment White 6:	
Bioaccumulation	 Species: Oncorhynchus mykiss (rainbow trout) Bioconcentration factor (BCF): 20 - 200 Exposure time: 14 d Concentration: 0.1 - 1 mg/l Method: Other GLP: No information available. Remarks: Does not accumulate in organisms.
Partition coefficient: n- octanol/water	: Remarks: inorganic
Mobility in soil	
Product:	

ABS GP35 004.000% TAN 4997B



ostance key: 000000653111		Revision Date: 09/26/202
sion : 1 - 1 / CDN		Date of printing :03/08/202
Distribution among environmental compartments	:	Remarks: not tested.
Components:		
Aluminium oxide:		
Distribution among environmental compartments	:	Remarks: Not applicable
N,N'-Ethylenedi(stearamide):	:	
Distribution among environmental compartments	:	log Koc: 8.6 - 8.91 Method: calculated
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
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 wate
Components:		
Aluminium oxide:		
Environmental fate and pathways	:	not available
Results of PBT and vPvB assessment	:	Remarks: Not applicable
Additional ecological information	:	Do not allow to enter ground water, waterways or waste wate
N,N'-Ethylenedi(stearamide):	:	
Results of PBT and vPvB	:	The substance is not identified as a PBT or as a vPvB

ABS GP35 004.000% TAN 4997B



Page 27

Substance key: 000000653111		Revision Date: 09/26/2020
Version : 1 - 1 / CDN		Date of printing :03/08/2023
assessment		substance.
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.
C Pigmont White 6		
C.I. Pigment White 6: 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.

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
ΙΑΤΑ	not restricted
IMDG	not restricted

SECTION 15. REGULATORY INFORMATION

NPRI Components	Zinc compour Chromium (III Copper Comp) compound
The components of this pro	t are reported	in the following inventories:
DSL	All componen	ts of this product are on the Canadian DSL



ABS GP35 004.000% TAN 4997B

Page 28

Substance key: 000000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023

Canadian lists

No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH CA AB OEL	:	USA. ACGIH Threshold Limit Values (TLV) 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; AIIC - Australian Inventory of Industrial Chemicals; 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; 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



ABS GP35 004.000% TAN 4997B

Page 29

Substance key: 000000653111	Revision Date: 09/26/2020
Version : 1 - 1 / CDN	Date of printing :03/08/2023

Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Revision Date:09/26/2020Date format:mm/dd/yyyy

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