Geon[™] DB4853 Mineral Silver

Version Number 1.4 Revision Date 03/16/2020 Page 1 of 18 Print Date 03/17/2020

SAFETY DATA SHEET

Geon[™] DB4853 Mineral Silver

Section 1. Identification		
GHS product identifier Chemical name	:	Geon [™] DB4853 Mineral Silver Mixture
CAS number Other means of identification	:	Mixture FO20029361
	: stance	liquid e or mixture and uses advised against
Product use Supplier's details	:	Industrial applications. Plastics. POLYONE CORPORATION
		33587 Walker Road, Avon Lake, OH 44012
Emergency telephone number	:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or
(with hours of operation)	·	accident).

Section 2. Hazards identification

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. After handling, always wash hands thoroughly with soap and water.

OSHA/HCS status	:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	:	EYE IRRITATION - Category 2B SKIN SENSITIZATION - Category 1

GHS label elements

Geon™ DB4853 Mineral Silver

Version Number 1.4 Revision Date 03/16/2020 Page 2 of 18 Print Date 03/17/2020

P<u>olyOne</u>

Hazard pictograms	:	
Signal word Hazard statements	:	Warning Causes eye irritation. May cause an allergic skin reaction.
Precautionary statements		
General Prevention Response	::	Not applicable. Wear protective gloves. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. IF ON SKIN: Wash with plenty of soap and water. Wash
		contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage	:	Not applicable.
Disposal	:	Dispose of contents and container in accordance with all local,
Supplemental label elements Hazards not otherwise classified	:	regional, national and international regulations. None known. None known. Not available.

Section 3. Composition/information on ingredients

Substance/mixture	:	Mixture
Chemical name	:	Mixture
Other means of identification	:	FO20029361

CAS number/other identifiers

Ingredient name	%	CAS number
1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich	25 - 50	68515-48-0
Titanium dioxide	0.3 - 1	13463-67-7



Geon™ DB4853 Mineral Silver

Version Number 1.4 Revision Date 03/16/2020 Page 3 of 18 Print Date 03/17/2020

Tris(4-nonylphenyl, branched and linear) phosphite with $\geq 0.1\%$	0.3 - 1	26523-78-4
w/w of 4-nonylphenol, branched and linear		

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	:	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

3/18

<u>vOne</u>.

Geon™ DB4853 Mineral Silver

Version Number 1.4 Revision Date 03/16/2020 Page 4 of 18 Print Date 03/17/2020

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact Inhalation Skin contact Ingestion	::	Causes eye irritation. No known significant effects or critical hazards. May cause an allergic skin reaction. No known significant effects or critical hazards.
Over-exposure signs/symptoms		
Eye contact	:	Adverse symptoms may include the following: irritation watering redness
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation redness
Ingestion	:	No specific data.
Indication of immediate medical atto	entio	n and special treatment needed, if necessary
Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or $\rm CO_2$. None known.
Specific hazards arising from the chemical	:	In a fire or if heated, a pressure increase will occur and the container may burst.

PolyOne.

Geon™ DB4853 Mineral Silver

Version Number 1.4	Page 5 of 18
Revision Date 03/16/2020	Print Date 03/17/2020

Hazardous thermal decomposition products	:	May emit Hydrogen Chloride (HCl). Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds
Special protective actions for fire- fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel For emergency responders	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for containm	ent a	nd cleaning up
Small spill	:	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to
		5/40

Ine

Geon[™] DB4853 Mineral Silver

Version Number 1.4 Revision Date 03/16/2020 Page 6 of 18 Print Date 03/17/2020

local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
1,2-Benzenedicarboxylic acid, di-C8-10- branched alkyl esters, C9-rich	None.
Tris(4-nonylphenyl, branched and linear) phosphite with $\ge 0.1\%$ w/w of 4-	None.



Geon™ DB4853 Mineral Silver

Version Number 1.4 Revision Date 03/16/2020

Page 7 of 18 Print Date 03/17/2020

nonylphenol, branched and linear				
Titanium dioxide		OSHA PEL 1989 (1989-03-01) TWA 10 mg/m3 Form: Total dust OSHA PEL (1993-06-30) TWA 15 mg/m3 Form: Total dust ACGIH TLV (1996-05-18) TWA 10 mg/m3		
Appropriate engineering controls	:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.		
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.		
Individual protection measures				
Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.		
Eye/face protection	:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.		
Skin protection				
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves		
Body protection	:	cannot be accurately estimated. Personal protective equipment for the body should be selected based		

<u>One</u>

Geon™ DB4853 Mineral Silver

Version Number 1.4	Page 8 of 18
Revision Date 03/16/2020	Print Date 03/17/2020
	on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection	: Appropriate footwear and any additional skin protection measures
	should be selected based on the task being performed and the risks
	involved and should be approved by a specialist before handling this
	product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be
	used according to a respiratory protection program to ensure proper

fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state:liquid [liquid]Color:GREYOdor:Not available.Odor threshold:Not available.pH:Not available.Boiling point:Not available.Boiling point:Not available.Boiling point:Not available.Burning time:Not available.Burning time:Not available.Burning rate:Not available.Evaporation rate:Not available.Flammability (solid, gas):Not available.Lower and upper explosive:Lower: Not available.(flammable) limits:Upper: Not available.Vapor pressure:Not available.Solubility:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.			
Odor:Not available.Odor threshold:Not available.pH:Not available.Melting point:Not available.Boiling point:Not available.Boiling point:Not available.Burning time:Not available.Burning rate:Not available.Evaporation rate:Not available.Flammability (solid, gas):Not available.Lower and upper explosive:Lower: Not available.(flammable) limits:Upper: Not available.Vapor pressure:Not available.Vapor density:Not available.Solubility in water:Not available.Partition coefficient: n-:Not available.octanol/water:Not available.Auto-ignition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Physical state	:	liquid [liquid]
Odor threshold:Not available.pH:Not available.Melting point:Not available.Boiling point:Not available.Boiling point:Not available.Flash point:Not available.Burning time:Not available.Burning rate:Not available.Evaporation rate:Not available.Flammability (solid, gas):Not available.Lower and upper explosive:Lower: Not available.(flammable) limits:Upper: Not available.Vapor pressure:Not available.Vapor density:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Color	:	GREY
pH:Not available.pH:Not available.Melting point:Not available.Boiling point:Not available.Flash point:Not available.Burning time:Not available.Burning rate:Not available.Evaporation rate:Not available.Flammability (solid, gas):Not available.Lower and upper explosive:Lower: Not available.(flammable) limitsUpper: Not available.Vapor pressure:Not available.Vapor density:Not available.Solubility:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Odor	:	Not available.
Melting point:Not available.Boiling point:Not available.Boiling point:Not available.Flash point:Not available.Burning time:Not available.Burning rate:Not available.Evaporation rate:Not available.Flammability (solid, gas):Not available.Lower and upper explosive:Lower: Not available.(flammable) limitsUpper: Not available.Vapor pressure:Not available.Vapor density:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Odor threshold	:	Not available.
Boiling point:Not available.Boiling point:Not available.Burning time:Not available.Burning rate:Not available.Burning rate:Not available.Evaporation rate:Not available.Flammability (solid, gas):Not available.Lower and upper explosive:Lower: Not available.(flammable) limits:Upper: Not available.Vapor pressure:Not available.Vapor density:Not available.Solubility:Not available.Solubility:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	рН	:	Not available.
Flash point:Not available.Burning time:Not available.Burning rate:Not available.Burning rate:Not available.Evaporation rate:Not available.Flammability (solid, gas):Not available.Lower and upper explosive:Lower: Not available.(flammable) limitsUpper: Not available.Vapor pressure:Not available.Vapor density:Not available.Relative density:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Melting point	:	Not available.
Burning time:Not available.Burning rate:Not available.Burning rate:Not available.Evaporation rate:Not available.Flammability (solid, gas):Not available.Lower and upper explosive:Lower: Not available.(flammable) limitsUpper: Not available.Vapor pressure:Not available.Vapor density:Not available.Relative density:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.Decomposition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Boiling point	:	Not available.
Burning rate:Not available.Evaporation rate:Not available.Flammability (solid, gas):Not available.Lower and upper explosive:Lower: Not available.(flammable) limitsUpper: Not available.Vapor pressure:Not available.Vapor density:Not available.Relative density:Not available.Solubility:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.Decomposition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Flash point	:	Not available.
Evaporation rate:Not available.Flammability (solid, gas):Not available.Lower and upper explosive:Lower: Not available.(flammable) limitsUpper: Not available.Vapor pressure:Not available.Vapor density:Not available.Relative density:Not available.Solubility:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.Decomposition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Burning time	:	Not available.
Flammability (solid, gas):Not available.Lower and upper explosive:Lower: Not available.(flammable) limitsUpper: Not available.Vapor pressure:Not available.Vapor density:Not available.Relative density:Not available.Solubility:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.Decomposition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Burning rate	:	Not available.
Lower and upper explosive (flammable) limits:Lower: Not available.(flammable) limitsUpper: Not available.Vapor pressure:Not available.Vapor density:Not available.Relative density:Not available.Solubility:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature SADT:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Evaporation rate	:	Not available.
(flammable) limitsUpper: Not available.Vapor pressure: Not available.Vapor density: Not available.Relative density: Not available.Solubility: Not available.Solubility in water: Not available.Partition coefficient: n-: Not available.octanol/water: Not available.Auto-ignition temperature: Not available.Decomposition temperature: Not available.SADT: Not available.Viscosity: Dynamic: Not available.	Flammability (solid, gas)	:	Not available.
Vapor pressure:Not available.Vapor density:Not available.Relative density:Not available.Solubility:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.Decomposition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Lower and upper explosive	:	Lower: Not available.
Vapor density:Not available.Relative density:Not available.Solubility:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.Decomposition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	(flammable) limits		Upper: Not available.
Relative density:Not available.Solubility:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.Decomposition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Vapor pressure	:	Not available.
Solubility:Not available.Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.Decomposition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Vapor density	:	Not available.
Solubility in water:Not available.Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature:Not available.Decomposition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Relative density	:	Not available.
Partition coefficient: n- octanol/water:Not available.Auto-ignition temperature Decomposition temperature SADT:Not available.SADT Viscosity:Not available.	Solubility	:	Not available.
octanol/water:Not available.Auto-ignition temperature:Not available.Decomposition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Solubility in water	:	Not available.
Auto-ignition temperature:Not available.Decomposition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	Partition coefficient: n-	:	Not available.
Decomposition temperature:Not available.SADT:Not available.Viscosity:Dynamic: Not available.	octanol/water		
SADT:Not available.Viscosity:Dynamic: Not available.	Auto-ignition temperature	:	Not available.
Viscosity : Dynamic: Not available.	Decomposition temperature	:	Not available.
•	SADT	:	Not available.
Kinematic: Not available.	Viscosity	:	Dynamic: Not available.
			Kinematic: Not available.
<u>Aerosol product</u>	Aerosol product		

Heat of combustion

:



Geon™ DB4853 Mineral Silver

Version Number 1.4 Revision Date 03/16/2020 Page 9 of 18 Print Date 03/17/2020

Ignition distance Enclosed space ignition - Time	:	Not available. Not available.
equivalent Enclosed space ignition - Deflagration density	:	Not available.
Flame height Flame duration	:	Not available. Not available.

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	Stable under recommended storage and handling conditions (see Section 7).
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Keep away from extreme heat and oxidizing agents.
Incompatible materials	:	Avoid contact with acetal homopolymers and acetyl homopolymers during processing.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Titanium dioxide				
Remarks - Oral:	No applicable toxic	city data		
	LC50 Inhalation	Rat - Male	6.82 Mg/l	4 h
	LD50 Dermal	Rabbit	> 5,000 mg/kg	-
Tris(4-nonylphenyl, branched	onylphenyl, branched and linear) phosphite with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear			
Remarks - Oral:	No applicable toxicity data			
Remarks - Inhalation:	No applicable toxicity data			
Remarks - Dermal:	No applicable toxicity data			
1,2-Benzenedicarboxylic acid,	d, di-C8-10-branched alkyl esters, C9-rich			
	LD50 Oral	Rat	10,000 mg/kg	-



Geon™ DB4853 Mineral Silver

Version Number 1.4 Revision Date 03/16/2020 Page 10 of 18 Print Date 03/17/2020

Remarks - Inhalation:	No applicable toxicity data
Remarks - Dermal:	No applicable toxicity data
Conclusion/Summary	: Mixture.Not fully tested.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium dioxide	Skin - Mild	Human		72 hrs	-
	irritant				
1,2-Benzenedicarboxylic	Eyes - Mild	Rabbit			-
acid, di-C8-10-branched	irritant				
alkyl esters, C9-rich					
Conclusion/Summary					
Skin		lixture.Not fu			
Eyes		lixture.Not fu			
Respiratory	: N	lixture.Not fu	Illy tested.		
<u>Sensitization</u>					
Conclusion/Summary					
Skin		lixture.Not fu			
Respiratory	: N	lixture.Not fu	illy tested.		
<u>Mutagenicity</u>					
Conclusion/Summary	: N	lixture.Not fu	ally tested.		
<u>Carcinogenicity</u>					
Conclusion/Summary	: N	lixture.Not fu	ally tested.		
Classification					
Product/ingredient name	OSHA	IARC	NTP		
Titanium dioxide	-	2B	-		
<u>Reproductive toxicity</u>					
Conclusion/Summary	: N	lixture.Not fu	Illy tested.		
<u>Teratogenicity</u>					
Conclusion/Summary	: N	lixture.Not fu	Illy tested.		
Specific target organ toxicity	(single exposu	<u>re)</u>			

Geon™ DB4853 Mineral Silver

Version Number 1.4 Revision Date 03/16/2020 Page 11 of 18 Print Date 03/17/2020

Not available.

Specific target organ toxicity (repeat Not available.	ed e	<u>xposure)</u>
Aspiration hazard Not available.		
Information on likely routes of exposure	:	Not available.
Potential acute health effects		
Eye contact	:	Causes eye irritation.
Inhalation	1	No known significant effects or critical hazards.
Skin contact	-	May cause an allergic skin reaction.
Ingestion	-	No known significant effects or critical hazards.
Symptoms related to the physical, ch	emi	cal and toxicological characteristics
Eye contact	:	Adverse symptoms may include the following: irritation, watering, redness
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation, redness
Ingestion	:	No specific data.
Short term exposure		chronic effects from short and long-term exposure
Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.
Long term exposure		
Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.
Potential chronic health effects		
Conclusion/Summary	:	Mixture.Not fully tested.
General	:	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	•	No known significant effects or critical hazards.
	•	
		11/18



yOne

Geon[™] DB4853 Mineral Silver

Version Number 1.4 Revision Date 03/16/2020

Page 12 of 18 Print Date 03/17/2020

Mutagenicity Teratogenicity **Developmental effects Fertility effects**

No known significant effects or critical hazards. :

No known significant effects or critical hazards. :

No known significant effects or critical hazards. : :

No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure		
Titanium dioxide		· -			
	Acute LC50 > 1,000 Mg/l Marine	Fish - Fish	96 h		
	water				
Remarks - Acute - Fish:	Acute				
	Acute LC50 3 Mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h		
Remarks - Acute - Aquatic	Acute	Crustacouns			
invertebrates.:	Tiouto				
	Acute LC50 6.5 Mg/l Fresh water	Aquatic invertebrates.	48 h		
	C	Daphnia			
Remarks - Acute - Aquatic	Acute				
invertebrates.:					
Remarks - Acute - Aquatic	No applicable toxicity data				
plants:					
Remarks - Chronic - Fish:	No applicable toxicity data				
Remarks - Chronic -	No applicable toxicity data				
Aquatic invertebrates.:					
	and linear) phosphite with $\geq 0.1\%$ w/w	v of 4-nonylphenol, branch	ed and linear		
Remarks - Acute - Fish:	No applicable toxicity data				
	Acute EC50 0.42 Mg/l	Aquatic invertebrates.	48 h		
		Daphnia			
Remarks - Acute - Aquatic	Acute				
invertebrates.:					
Remarks - Acute - Aquatic	No applicable toxicity data				
plants:					
Remarks - Chronic - Fish:	No applicable toxicity data				



Geon™ DB4853 Mineral Silver

Version Number 1.4 Revision Date 03/16/2020 Page 13 of 18 Print Date 03/17/2020

Remarks - Chronic -	No applicable toxicity data
Aquatic invertebrates.:	
1,2-Benzenedicarboxylic acid,	di-C8-10-branched alkyl esters, C9-rich
Remarks - Acute - Fish:	No applicable toxicity data
Remarks - Acute - Aquatic	No applicable toxicity data
invertebrates.:	
Remarks - Acute - Aquatic	No applicable toxicity data
plants:	
Remarks - Chronic - Fish:	No applicable toxicity data
Remarks - Chronic -	No applicable toxicity data
Aquatic invertebrates.:	
Conclusion/Summary	: Not available.

Persistence and degradability

Conclusion/Summary

Not available.

:

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Tris(4-nonylphenyl, branched and	14	-	high
linear) phosphite with $\geq 0.1\%$ w/w of			
4-nonylphenol, branched and linear			
1,2-Benzenedicarboxylic acid, di-C8-	8.8	3.00	low
10-branched alkyl esters, C9-rich			

Mobility in soil

Disposal methods

Soil/water partition coefficient	:	Not available.
(KOC)		
Other adverse effects	:	No known significant effects or critical hazards.

Section 13. Disposal considerations

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the

vOne

Geon™ DB4853 Mineral Silver

Version Number 1.4				
Revision Date	03/16/2020			

Page 14 of 18 Print Date 03/17/2020

requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Acute hazardous waste "P" List: Not listed

United States - RCRA Toxic hazardous waste "U" List: Not listed

Section 14. Transport information

U.S.DOT 49CFR Ground/Air/Water	:	Not regulated for transportation.
International Air ICAO/IATA	:	Consult mode specific transport rules
International Water IMO/IMDG	:	Consult mode specific transport rules

Section 15. Regulatory information

U.S. Federal regulations	 United States - TSCA 12(b) - Chemical export notification: None of the components are listed. United States - TSCA 4(a) - Final Test Rules: Listed 1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich
	United States - TSCA 4(a) - ITC Priority list: Not listed United States - TSCA 4(a) - Proposed test rules: Not listed United States - TSCA 4(f) - Priority risk review: Not listed United States - TSCA 5(a)2 - Final significant new use rules: Listed 4-Nonylphenol, branched
	United States - TSCA 5(a)2 - Proposed significant new use rules: Not listed United States - TSCA 5(e) - Substances consent order: Not listed United States - TSCA 6 - Final risk management: Not listed United States - TSCA 6 - Proposed risk management: Not listed

<u>vOne</u>

Geon™ DB4853 Mineral Silver

Version Number 1.4	Page 15 of 18
Revision Date 03/16/2020	Print Date 03/17/2020

		United States - TSCA 8(a) - Chemical risk rules: Not listed United States - TSCA 8(a) - Dioxin/Furane precusor: Not listed United States - TSCA 8(a) - Chemical Data Reporting (CDR): Not determined United States - TSCA 8(a) - Preliminary assessment report (PAIR): Listed 4-Nonylphenol, branched United States - TSCA 8(c) - Significant adverse reaction (SAR): Not listed United States - TSCA 8(d) - Health and safety studies: Not listed
		United States - EPA Clean water act (CWA) section 307 - Priority pollutants: Listed Vinyl chloride monomer 2-Ethylhexanoic acid zinc salt
		United States - EPA Clean water act (CWA) section 311 - Hazardous substances: Not listed United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Flammable substances: Not listed United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Toxic substances: Not listed United States - Department of commerce - Precursor chemical: Not listed
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)	:	Listed
Clean Air Act Section 602 Class I Substances	:	Not listed
Clean Air Act Section 602 Class II Substances	:	Not listed
DEA List I Chemicals (Precursor Chemicals)	:	Not listed
DEA List II Chemicals (Essential Chemicals)	:	Not listed

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

SARA 311/312

Classification

: EYE IRRITATION - Category 2B SKIN SENSITIZATION - Category 1

Composition/information on ingredients

Name	%	Classification		
15/18				



Geon™ DB4853 Mineral Silver

Version Number 1.4 Revision Date 03/16/2020

Page 16 of 18 Print Date 03/17/2020

Titanium dioxide	>= 0.3 - <= 1	CARCINOGENICITY - Category 2
Tris(4-nonylphenyl, branched and linear) phosphite with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear	>= 0.3 - <= 1	SKIN SENSITIZATION - Category 1
1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich	>= 25 - <= 50	EYE IRRITATION - Category 2B

Not applicable.

State regulations		
Massachusetts	:	None of the components are listed.
New York	:	None of the components are listed.
New Jersey	:	The following components are listed: Titanium dioxide
Pennsylvania	:	Ethene, chloro-, homopolymer The following components are listed: Titanium dioxide

California Prop. 65

WARNING: This product can expose you to chemicals including 1,2-Benzenedicarboxylic acid, di-C8-10branched alkyl esters, C9-rich, Titanium dioxide, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
Titanium dioxide	-	-
1,2-Benzenedicarboxylic acid, di-C8-10-	Yes.	-
branched alkyl esters, C9-rich		

Geon™ DB4853 Mineral Silver

Version Number 1.4 Revision Date 03/16/2020 Page 17 of 18 Print Date 03/17/2020

Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Europe inventory	:	All components are listed or exempted.
Japan	:	Not determined.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are active or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	/	2
Flammability		0
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual. History

Date of printing	:	03/17/2020
Date of issue/Date of revision	:	03/16/2020
Date of previous issue	:	12/27/2018
Version	:	1.4
Key to abbreviations	:	ATE = Acute Toxicity Estimate
•		BCF = Bioconcentration Factor
		GHS = Globally Harmonized System of Classification and Labelling of
		Chemicals
		IATA = International Air Transport Association
		IBC = Intermediate Bulk Container
		IMDG = International Maritime Dangerous Goods
		LogPow = logarithm of the octanol/water partition coefficient
		MARPOL = International Convention for the Prevention of Pollution From
		Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine
		pollution)
		UN = United Nations

17/18



Geon™ DB4853 Mineral Silver

Version Number 1.4 Revision Date 03/16/2020 Page 18 of 18 Print Date 03/17/2020

References

Not available.

:

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Particularly this information may not be valid for such material used in conjunction with any other materials or in any process, unless specified in the text.