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SAFETY DATA SHEET

SILCOPAS GRAY 52502

Section 1. Identification		
GHS product identifier Chemical name CAS number Other means of identification Product type	: : : : : : : : : : : : : : : : : : : :	SILCOPAS GRAY 52502 Mixture Mixture FO00014939 liquid
Relevant identified uses of the subs	tance	or mixture and uses advised against
Product use	:	Industrial applications. Plastics.
Supplier's details	:	GSDI Specialty Dispersions, Inc. 1675 Navarre Road SW, Massillon, Ohio USA 44646
Emergency telephone number (with hours of operation)	:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).

Section 2. Hazards identification

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants 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. See sections 8 and 11 for special precautions. After handling, always wash hands thoroughly with soap and water.

OSHA/HCS status	:	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	:	Not classified.

GHS label elements



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Signal word	:	No signal word.
Hazard statements	:	No known significant effects or critical hazards.
Precautionary statements		
General	:	Not applicable.
Prevention	:	Not applicable.
Response	:	Not applicable.
Storage	:	Not applicable.
Disposal	:	Not applicable.
Supplemental label elements	:	None known.
Hazards not otherwise classified	:	None known.

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Section 3. Composition/information on ingredients

Substance/mixture	:	Mixture
Chemical name	:	Mixture
Other means of identification	:	FO00014939

CAS number/other identifiers

Ingredient name	%	CAS number
Titanium dioxide	10 - 25	13463-67-7
Carbon black	3 - 5	1333-86-4
	5 5	1555 00 1

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



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		upper and lower eyelids. Check for and remove any contact lenses.
		Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable
		for breathing. Get medical attention if symptoms occur.
Skin contact	:	Flush contaminated skin with plenty of water. Remove contaminated
		clothing and shoes. Get medical attention if symptoms occur.
Ingestion	:	Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by
		medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact Inhalation Skin contact Ingestion	:	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.		
Over-exposure signs/symptoms				
Eye contact	:	No specific data.		
Inhalation	:	No specific data.		
Skin contact	:	No specific data.		
Ingestion	:	No specific data.		
Indication of immediate medical attention 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO ₂ .
Unsuitable extinguishing media	:	None known.

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Specific hazards arising from the chemical Hazardous thermal decomposition products	:	In a fire or if heated, a pressure increase will occur and the container may burst. Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides
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

:	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. Put on appropriate personal protective equipment. If specialised 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".
:	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).
ent a	nd cleaning up
:	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.
:	Stop leak if without risk. Move containers from spill area. 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 local regulations (see Section 13).
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Dispose of via a licensed waste disposal contractor. 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 Advice on general occupational hygiene	:	Put on appropriate personal protective equipment (see Section 8). 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		
Carbon black	OSHA PEL 1989 (1989-03-01)		
	PEL: Permissible Exposure Level 3.5 mg/m3		
	OSHA PEL (1993-06-30)		
	PEL: Permissible Exposure Level 3.5 mg/m3		
	NIOSH REL (1994-06-01)		
	Time Weighted Average (TWA) 3.5 mg/m3		
	Time Weighted Average (TWA)		
	ACGIH TLV (2010-12-06)		
	TLV-TWA: Threshold Limit Value - Time weighted average PEL:		
	Permissible Exposure Level 3 mg/m3 Form: Inhalable fraction		



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Titanium dioxide		OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 10 mg/m3 Form: Total dust OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 15 mg/m3 Form: Total dust NIOSH REL (1994-06-01) ACGIH TLV (1996-05-18) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 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 Eye/face protection	:	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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. 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: safety glasses with side-shields.
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 rick assessment indicates this is pacessary.
Body protection	:	if a risk assessment indicates this is necessary. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be
Other skin protection	:	approved by a specialist before handling this product. 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	:	Use a properly fitted, air-purifying or air-fed respirator complying



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with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state	:	liquid [Paste.]
Color	:	GREY
Odor	:	Not available.
Odor threshold	:	Not available.
рН	:	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) limits		Upper: Not available.
	:	Upper: Not available. Not available.
(flammable) limits	:	
(flammable) limits Vapor pressure	:	Not available.
(flammable) limits Vapor pressure Vapor density	:	Not available. Not available.
(flammable) limits Vapor pressure Vapor density Relative density	:	Not available. Not available. Not available.
(flammable) limits Vapor pressure Vapor density Relative density Solubility	:	Not available. Not available. Not available. Not available.
(flammable) limits Vapor pressure Vapor density Relative density Solubility Solubility in water	:	Not available. Not available. Not available. Not available. Not available.
(flammable) limits Vapor pressure Vapor density Relative density Solubility Solubility in water Partition coefficient: n-		Not available. Not available. Not available. Not available. Not available.
(flammable) limits Vapor pressure Vapor density Relative density Solubility Solubility in water Partition coefficient: n- octanol/water	:	Not available. Not available. Not available. Not available. Not available. Not available.
(flammable) limits Vapor pressure Vapor density Relative density Solubility Solubility in water Partition coefficient: n- octanol/water Auto-ignition temperature	:	Not available. Not available. Not available. Not available. Not available. Not available.
(flammable) limits Vapor pressure Vapor density Relative density Solubility Solubility in water Partition coefficient: n- octanol/water Auto-ignition temperature Decomposition temperature		Not available. Not available. Not available. Not available. Not available. Not available. 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.

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Conditions to avoid Incompatible materials	:	Keep away from extreme heat and oxidizing agents. Keep away from strong acids. Oxidizer.
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							
	LC50 Inhalation	Rat - Male	6.82 Mg/l	4 h			
	LD50 Dermal	Rabbit	> 5,000 mg/kg	-			
Carbon black							
	LD50 Oral	Rat	15,400 mg/kg	-			
Conclusion/Summary	nary : Mixture.Not fully tested.						

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium dioxide	Skin - Mild	Human		72 hrs	-
	irritant				
Conclusion/Summary					
Skin		/lixture.Not fu			
Eyes		/lixture.Not fu	•		
Respiratory	: N	/lixture.Not fu	Illy tested.		
Sensitization					
Conclusion/Summary					
Skin	: N	/lixture.Not fu	Illy tested.		
Respiratory	: N	/lixture.Not fu	lly tested.		
Mutagenicity					
Conclusion/Summary	: N	/lixture.Not fu	illy tested.		
Carcinogenicity					



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Conclusion/Summary Classification	:	Mixture.Not fu	lly tested.
Product/ingredient name	OSHA	IARC	NTP
Titanium dioxide		2B	
Carbon black		2B	
<u>Reproductive toxicity</u>			
Conclusion/Summary	:	Mixture.Not fu	lly tested.
Teratogenicity			
Conclusion/Summary	:	Mixture.Not fu	lly tested.
Specific target organ toxicity Not available.	y (single expo	<u>sure)</u>	
Specific target organ toxicity Not available.	y (repeated ex	<u>(posure)</u>	
Aspiration hazard Not available.			
Information on the likely rou exposure	ites of :	Not available.	
Potential acute health effects			
Eye contact	:	No known sigr	ificant effects or critical hazards.
Inhalation	:	No known sigr	ificant effects or critical hazards.
Skin contact	:	No known sign	ificant effects or critical hazards.
Ingestion	:	No known sign	ificant effects or critical hazards.
Symptoms related to the phy	sical, chemica	al and toxicolo	gical characteristics
Eye contact	:	No specific dat	a.
Inhalation		No specific dat	
Skin contact		No specific dat	
Ingestion		No specific dat	
Delayed and immediate effec	ts and also ch	ronic effects f	rom short and long term exposure
Short term exposure			
Potential immediate effects	:	Not available.	



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Potential delayed effects	:	Not available.
Long term exposure		
Potential immediate effects Potential delayed effects	:	Not available. Not available.
Potential chronic health effects		
Conclusion/Summary	:	Mixture.Not fully tested.
General Carcinogenicity Mutagenicity Teratogenicity Developmental effects Fertility effects		No known significant effects or critical hazards. No known significant effects or critical hazards.
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Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	111,597.8 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium dioxide			
	Acute LC50 > 1,000,000 µg/l	Fish - Fish	96 h
	Marine water		
	Acute LC50 > 1,000 mg/l Fresh	Fish - Fish	96 h
	water		
	Acute LC50 13 mg/l Fresh water	Aquatic invertebrates.	48 h
	_	Daphnia	
	Acute LC50 6.5 mg/l Fresh water	Aquatic invertebrates.	48 h
		Daphnia	
	Acute LC50 3 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustaceans	
	Acute LC50 15.9 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustaceans	
		crustateuns	



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	Acute LC50 3.6 mg/l Fresh water	Aquatic invertebrates.	48 h
	_	Crustaceans	
	Acute LC50 11 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustaceans	
	Acute LC50 13.4 mg/l Fresh water	Aquatic invertebrates.	48 h
	_	Crustaceans	
	Acute EC50 27.8 mg/l Fresh water	Aquatic invertebrates.	48 h
		Daphnia	
	Acute EC50 19.3 mg/l Fresh water	Aquatic invertebrates.	48 h
		Daphnia	
	Acute EC50 35.306 mg/l Fresh	Aquatic invertebrates.	48 h
	water	Daphnia	
Carbon black			
	Acute EC50 37.563 mg/l Fresh	Aquatic invertebrates.	48 h
	water	Daphnia	
	Acute LC50 61.547 mg/l Fresh	Aquatic invertebrates.	48 h
	water	Daphnia	
Conclusion/Summary	: Not available.		

Persistence and degradability

Conclusion/Summary

Not available.

:

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Titanium dioxide		352.00	low

Mobility in soil

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

Section 13. Disposal considerations

Disposal methods	:	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 requirements of all authorities with jurisdiction. Waste packaging
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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. 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 Classification	:	Not regulated for transportation.
ICAO/IATA	:	Consult mode specific transport rules
IMO/IMDG (maritime)	:	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: Not listed
		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: Not
		listed
		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
		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): Not listed
		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: Not listed
		United States - EPA Clean water act (CWA) section 311 -

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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)	:	Not listed
Hazardous Air Pollutants (HAPs) Clean Air Act Section 602 Class I	:	Not listed
Substances Clean Air Act Section 602 Class II	:	Not listed
Substances DEA List I Chemicals (Precursor	:	Not listed
Chemicals) DEA List II Chemicals (Essential		Not listed
Chemicals)	Ĵ	

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

SARA 311/312

Classification

Not applicable.

:

Composition/information on ingredients

Name	%	Classification
Carbon black	3 - 5	СН

SARA 313

Not applicable.

State regulations	
Massachusetts	: The following components are listed:
	Carbon black
	Silica, amorphous
	Titanium dioxide
New York	: None of the components are listed.
New Jersey	: The following components are listed:
	Titanium dioxide
	Carbon black
Pennsylvania	: The following components are listed:
·	Silica, amorphous
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Carbon black

Titanium dioxide

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

United States inventory (TSCA 8b)	:	All components are listed or exempted.
Canada inventory	:	All components are listed or exempted.
International regulations		
International lists	:	 Australia inventory (AICS): All components are listed or exempted. Taiwan inventory (CSNN): All components are listed or exempted. Malaysia Inventory (EHS Register): Not determined. EINECS: All components are listed or exempted. Japan inventory: All components are listed or exempted. China inventory (IECSC): All components are listed or exempted. Korea inventory: All components are listed or exempted. New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted. Philippines inventory (PICCS): All components are listed or exempted.
Chemical Weapons Convention List Schedule I Chemicals Chemical Weapons Convention List Schedule II Chemicals	: :	Not listed
Chemical Weapons Convention List Schedule III Chemicals	:	Not listed

Section 16. Other information

History Date of printing Date of issue/Date of revision Date of previous issue Version	::	05/05/2016 05/04/2016 05/04/2016 1.0
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

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IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations Not available.

References

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.