ADVANCED CHEMICAL TECHNOLOGIES, INC.

SAFETY DATA SHEET

SECTION 1 MATERIAL IDENTIFICATION

PRODUCT NAME / DESCRIPTION: SIL-GUARD ® / WB Clear Anti-Graffiti Silicone Coating

DISTRIBUTED / MANUFACTURED BY:
Advanced Chemical Technologies
9608 N Robinson
Oklahoma City, OK 73114

Date: 2/14/2024 (Version 3)
Phone: (405) 843-2585
Emergency Phone: (800) 255-3924

Proper Usage:	Professional Use, Industrial Use
Use of Material:	Masonry, wood, metal, plaster coating
Improper Use:	Not classified on available data

SECTION 2 HAZARD IDENTIFICATION

CLASSIFICATION:
GHS Classification according to OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion:	Category 3
Eye irritation	Category 2A
Reproductive toxicity	Category A

SIGNAL WORD:	WARNING!
HAZARD STATEMENTS:	Causes mild skin irritation.
	Causes serious eye irritation
	Suspected of damaging fertility or the unborn child
PRECAUTIONARY STATEMENTS	
Prevention:	Wash skin and face thoroughly after handling.
	Wear protective gloves and eye protection.
	Obtain special instructions before use.
	Do not handle until all safety precautions have been read and understood.
	Use personal Protective equipment as required.
Response:	IF IN EYES: Rinse cautiously with water for several minutes.
	Remove Contact lenses, if present and easy to do so. Continue rinsing.
	If skin irritation occurs: Get medical attention.

	If eye irritation persists: Get medical attention.
	If exposed or concerned: Get medical advice.
	Store locked up.
Disposal:	Dispose of contents/container to an approved waste disposal plant.
Other hazards:	No additional information available.

SECTION 3 HEALTH HAZARDS

Substance: Not applicable

Hazardous ingredients:

Name	CAS No.	Concentration (Wt %)
Water	7732-18-5	40 – 50%
Organomodified polydimethylsiloxane	Not assigned	30 – 40%
Silicon dioxide	7631-86-9	5 – 10%
Diethylamine	109-89-7	0.25 – 1%
2-Amino-2-methyl-1-propanol	124-68-5	0.25 – 1%
Octamethylcyclotetrasiloxane	556-67-2	0.1 – 1%
Titanium dioxide	13463-67-7	0 – 5%
Carbon black	1333-86-4	0 – 5%
Cobalt aluminate blue spinel	1345-16-0*	0 – 5%
Cobalt titanate green spinel	68186-85-6*	0 – 5%
Antimony nickel titanium oxide yellow	8007-18-9*	0 – 5%
Rutile tin zinc	85536-73-8*	0 – 5%
Niobium sulfur tin zinc oxide	1374645-21-2*	0 – 5%
Iron oxide red	1309-37-1	0 – 5%
Yellow iron hydroxide	20344-49-4	0 – 5%

Composition Comments: This product is the result of high temperature calcination of the component substances. Due to its unique crystalline structure the properties of this finished product pigment do not necessarily reflect the properties of the component metals of oxides.

SECTION 4 FIRST AID MEASURES

First aid measures	Never give anything by mouth to an unconscious person. In case of accident or if you feel unwell, seek medical advice (show the label where possible). When symptoms persist or in all cases of doubt, seek medical advice.
First aid measures after inhalation	Allow the victim to breathe fresh air. Allow the victim to rest. Get medical attention.
First aid measures after skin contact	Wash with plenty of soap and water. Wash contaminated clothing before refuse. If skin irritation or rash occurs: Get medical advice/attention.
First aid measures after eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First aid measures after ingestion:	Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Most important symptoms and effects, both acute and delayed:

Symptoms/Injuries: No data available

Indication of any immediate medical attention and speedy treatment needed:

Treat symptomatically

SECTION 5 FIRE FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media:	Water spray. Alcohol-resistant foam. Carbon dioxide (CO_2). Dry chemical.
Unsuitable extinguishing media:	None known.

Special hazards arising from the substance or mixture:

Specific hazards during firefighting:	Exposure to combustion products may be a hazard to health.
Hazardous combustion products:	Carbon oxides. Silicon oxides. Formaldehyde.

Advice for firefighters:

Firefighting instructions:	Use extinguishing methods that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from the fire area if it is safe to do so. Evacuate area.
Protection during firefighting:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:	Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.
Environmental precautions:	Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up:	Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in an appropriate container. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the clean-up of releases. You will need to determine which regulations are applicable.
Reference to other sections:	Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling:

Local/Total ventilation:	Use only with adequate ventilation.
Precautions for safe handling:	Avoid inhalation of vapor or mist. Do not swallow. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Handle in accordance with good industrial hygiene and safety practice. Take care to prevent spills, waste and minimize release to the environment
Hygiene measures:	Wash contaminated clothing before reuse. Do not eat, drink, or smoke when using this product. Wash skin thoroughly after handling.

Conditions for safe storage, including any incompatibilities:

Storage conditions:	Keep in properly labeled containers. Store in accordance with the national regulations.
Incompatible materials:	Strong oxidizing agents, strong acids.
Specific end use(s):	No additional information available/

SECTION 8 PERSONAL PROTECTION / EXPOSURE CONTROLS

Control Parameters:

Ingredients with workplace control parameters:

Ingredients	CAS No.	Type (form of exposure)	Value	Basis
Silicon Dioxide	7631-86-9	TWA (Dust)	20 million particles per cubic foot (silica) 80 mg/m^3 / %SiO_2 silica)	OSHA
		TWA	6 mg/m^3 (silica)	NIOSH
Diethylamine	109-89-7	TWA	5 ppm	ACGIH
		STEL	15 ppm	ACGIH
		TWA	25 ppm 75 mg/m^3	OSHA Z-1
		TWA	10 ppm	NIOSH REL

			30 mg/m^3	
		ST	25 ppm 75 mg/m^3	NIOSH REL
		C	5 ppm 15 mg/m^3	California Permissible Exposure limits for chemical contaminants (Title 8, Article 107)
Tin and components		PEL	2mg/m^3	OSHA
		TWA	2mg/m^3	NIOSH
		TWA	2mg/m^3	ACGIH
Iron oxide red	1309-37-1	TWA	5 mg/m^3	WEL
		STEL	10 mg/m^3	WEL
Titanium dioxide	13463-67-7	PEL	15 mg/m^3	OSHA
		TWA	10 mg/m^3	ACGIH
Cobalt metal, dust and fumes		PEL	0.1 mg/m^3	OSHA
		TWA	0.02 mg/m^3	ACGIH
		TWA	0.05 mg/m^3	NIOSH
Nickel, metal and insoluble compounds		PEL	1 mg/m^3	OSHA
		TWA	1.5 mg/m^3	ACGIH
		TWA	0.015 mg/m^3	NIOSH
Antimony nickel titanium oxide yellow	8007-18-9	TWA	3 mg/m^3	ACGIH
Carbon Black	1333-86-4	TWA	3.5 mg/m^3	OSHA
		TWA	3 mg/m^3	ACGIH
		TWA	3.5 mg/m^3	NIOSH
Octamethylcyclotetrasiloxane	556-67-2	TWA	10 ppm	US WEEL

Exposure controls:

Appropriate engineering controls:	Processing may form hazardous compounds (see Section 10). Ensure adequate ventilation, especially in confined areas. Minimize workspace exposure concentrations.
Personal protective equipment:	Protective clothing. Protective goggles or safety glasses. Gloves.
Hand protection:	Permeation-resistant gloves, butyl rubber gloves, nitrile rubber gloves, neoprene gloves.
Eye protection:	Chemical safety goggles or safety glasses with side shields. Chemical safety goggles in combination with a full face-shield if splash hazard exists.
Skin and body protection:	Permeation-resistant clothing, gloves, long sleeve shirt, and pants.
Respiratory protection:	Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: NIOSH approved respirator with organic vapor cartridge and a particulate pre-filter.
Other information:	Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eyewash stations should be available. Store separate from food products.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state:	Liquid
Appearance:	Liquid
Color:	Various
Odor:	Amine, mild
Odor threshold:	No data available
pH:	11-12
Relative evaporation rate (butyl acetate=1):	No data available
Melting point:	No data available
Freezing point:	0 °C
Boiling point:	100 °C
Flash point:	>101.1 °C Method: Closed cap
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	Non-flammable
Vapor pressure:	No data available
Relative vapor density at 20 °C:	No date available
Relative density:	No data available
Density:	1.02 g/cm^3
Solubility:	No data available
Log Pow:	No data available
Viscosity, kinematic:	20,000 cSt
Explosive properties:	Not explosive
Oxidizing properties:	This mixture is not classified as oxidizing
Explosive limits:	No data available
Other information:	No other information available

SECTION 10 STABILITY AND REACTIVITY

Reactivity:	Not classified as a reactivity hazard
Chemical stability:	Stable under normal conditions
Possibility of hazardous reactions:	Use at elevated temperatures may form highly hazardous compounds. Can react with oxidizing agents. Hazardous decomposition products will be formed at elevated temperatures.
Conditions to avoid:	None known
Incompatible materials:	Oxidizing agents, strong acids
Hazardous decomposition products:	Carbon oxides. Silicon oxides. Formaldehyde.

SECTION 11 TOXICOLOGICAL PROPERTIES

Information on toxicological effects:

Likely routes of exposure:	Inhalation. Skin contact. Ingestion. Eye contact.
Acute toxicity:	Not classified based on available data. Acute oral toxicity estimate >5000 mg/kg Method: calculation Acute dermal toxicity estimate: >5000 mg/kg Method: calculation Acute inhalation toxicity estimate: >5000 mg/kg Method: calculation

Ingredient	Remarks
Organomodified polydimethylsiloxane	No data available

Silicon dioxide	No data available
Diethylamine	LD50 Oral – Rat – male – 100 mg/kg (OECD Test Guidelines 401) Acute toxicity estimate Oral – 100 mg/kg (Calculation method) LC50 Inhalation – Rat – female – 4 h – 17.11 mg/l – vapor (OECD Test Guideline 403) Acute toxicity estimate Inhalation – 17.11 mg/l – vapor (Calculation method) LD50 Dermal – Rabbit – male – 582 mg/kg Remarks: (IUCLID)(ECHA) Acute toxicity estimate Dermal – 582 mg/kg (Calculation method)
2-Amino-2-methyl-1-propanol	LD50 Oral – Rat – male – 2.900 mg/kg (2-Amino-2-methyl-1-propanol) (OECD Test Guideline 401) Inhalation: No data available LD50 Dermal – Rabbit – male and female - >2.000 mg/kg (2-Amino-2-methyl-1-propanol) (OECD Test Guideline 402)
Octamethylcyclotetrasiloxane	LD50, Rat, male, >4.800 mg/kg No deaths occurred at this concentration.
Titanium dioxide	LD50 Oral – Rat - >10.000 mg/kg Inhalation: No data available LD50 Dermal – Rabbit - >10.000 mg/kg
Carbon black	LD50 Oral – Rat – male and female - >8.000 mg/kg Inhalation: No data available LD50 Dermal – Rabbit - >3.000 mg/kg
Cobalt aluminate blue spinel	No data available
Cobalt titanate green spinel	No data available
Antimony nickel titanium oxide yellow	No data available
Rutile tin zinc	No data available
Niobium sulfur tin zinc oxide	No data available
Iron oxide red	No data available
Yellow iron hydroxide oxide	No data available

Skin corrosion/irritation:	May cause skin irritation.
Ingredients	Remarks
Organomodified polydimethylsiloxane	No data available
Silicon dioxide	No data available
Diethylamine	Skin – Rabbit Result: Causes severe burns (OECD Test Guideline 404) Remarks: (Regulation (EC) No 1272/2008, Annex VI)
2-Amino-2-methyl-1-propanol	Brief contact may cause severe skin irritation with pain and local redness. Prolonged contact may cause severe skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage. Not classified as corrosive to the skin according to EC guidelines.
Octamethylcyclotetrasiloxane	Brief contact is essentially nonirritating to skin.
Titanium dioxide	Skin – Rabbit Result: No skin irritation
Carbon black	Skin – Rabbit Result: No skin irritation – 2 h
Cobalt aluminate blue spinel	No data available
Cobalt titanate green spinel	No data available
Antimony nickel titanium oxide yellow	No data available
Rutile tin zinc	No data available
Niobium sulfur tin zinc oxide	No data available
Iron oxide red	No data available
Yellow iron hydroxide oxide	No data available

Serious eye damage/eye irritation:	May cause eye irritation.
Ingredients	Remarks
Organomodified polydimethylsiloxane	No data available
Silicon dioxide	No data available
Diethylamine	Eyes – Rabbit Result: Causes burns – 7 days (Regulation (EC) No. 440/2008 Annex, B.5)

2-Amino-2-methyl-1-propanol	May cause severe irritation with corneal injury which may result in impairment of vision, even blindness. Chemical burns may occur.
Octamethylcyclotetrasiloxane	Essentially nonirritating to eyes.
Titanium dioxide	Eyes – Rabbit Result: No eye irritation
Carbon black	Eyes – Rabbit Result: No eye irritation
Cobalt aluminate blue spinel	No data available
Cobalt titanate green spinel	No data available
Antimony nickel titanium oxide yellow	No data available
Rutile tin zinc	No data available
Niobium sulfur tin zinc oxide	No data available
Iron oxide red	No data available
Yellow iron hydroxide oxide	No data available

Skin sensitization:	Not classified based on available information.
Respiratory sensitization:	Not classified based on available information.
Germ cell mutagenicity:	Not classified based on available information.
Carcinogenicity:	Not classified based on available information.
Ingredients	Remarks
Organomodified polydimethylsiloxane	No data available
Silicon dioxide	No data available
Diethylamine	Species: Rat Exposure time: 104 weeks Application Route: Inhalation Result: Negative
2-Amino-2-methyl-1-propanol	No relevant data found
Octamethylcyclotetrasiloxane	Results from a 2-year repeated vapor inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. This finding occurred at the highest exposure dose (700 ppm) only. Studies to date have not demonstrated if these effects occur through pathways that are relevant to humans. Repeated exposure in rats to D4 resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humas is unknown.
Titanium dioxide	Suspected of causing cancer. IARC has classified TIO2 as 2B Possibly carcinogenic to humans. However, the only evidence of carcinogenicity is in rats exposed to very high concentrations. Two major epidemiology studies among titanium dioxide workers in the US and in EUROPE could not demonstrate an elevated lung cancer risk. Boffetta et. al. Mortality among workers employed in the titanium dioxide production industry in Europe. Cancer Causes Control. 2004 Sep; 15(7):697-706. Fryzek et. al. A cohort mortality study among titanium dioxide manufacturing workers in the United States. J Occup Environ Med. 2003 Apr;45(4):400-9. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. IARC Monographs, Volume 93 (Summary)
Carbon black	IARC monographs report that the certain carbon clacks have been found to be carcinogenic to animals in laboratory experiments.
Cobalt aluminate blue spinel	IARC has classified cobalt and cobalt compounds as possible carcinogenic to humans. This product is the result of high temperature calcination of the component substances. Due to its unique crystalline structure the properties of this finished pigment do not necessarily reflect the properties of the component metals or oxides.
Cobalt titanate green spinel	IARC has classified cobalt and cobalt compounds as possible carcinogenic to humans. This product is the result of high temperature calcination of the component substances. Due to its unique crystalline structure the properties of this finished pigment do not necessarily reflect the properties of the component metals or oxides.
Antimony nickel titanium oxide yellow	No data available

Rutile tin zinc	No data available
Niobium sulfur tin zinc oxide	No data available
Iron oxide red	No data available
Yellow iron hydroxide oxide	No data available

Reproductive toxicity:	Suspected of damaging fertility or the unborn child.
Ingredients	Remarks
Organomodified polydimethylsiloxane	No data available
Silicon dioxide	No data available
Diethylamine	No data available
2-Amino-2-methyl-1-propanol	In animal studies, did not interfere with reproduction.
Octamethylcyclotetrasiloxane	In laboratory studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals. In animal studies, has been shown to interfere with fertility.
Titanium dioxide	No data available
Carbon black	No data available
Cobalt aluminate blue spinel	No data available
Cobalt titanate green spinel	No data available
Antimony nickel titanium oxide yellow	No data available
Rutile tin zinc	No data available
Niobium sulfur tin zinc oxide	No data available
Iron oxide red	No data available
Yellow iron hydroxide oxide	No data available

Specific target organ toxicity (single exposure):	Not classified based on available data.
Specific target organ toxicity (repeated exposure):	Not classified based on available data.
Repeated dose toxicity:	Not classified based on available data.
Aspiration hazard:	Not classified based on available data.
Potential adverse human health effects and symptoms:	Not classified based on available data.
Further information:	No chronic effects are known from repeated exposure to iron oxide pigment. Prolonged inhalation (6 to 10 years) of iron oxide fumes has been reported to produce changes in lung x-rays of exposed individuals. This condition, siderosis, is considered to be benign pneumoconiosis that exhibits no adverse health effects, Siderosis has been observed among occupations such as arc welders where iron oxide fumes are present. To the best of our knowledge, this condition has not been observed after prolonged exposure to iron oxide pigment. There are no iron oxide fumes contained in this product and none should be generated under normal use.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Organomodified polydimethylsiloxane	No data available	
Silicon dioxide	No data available	
Diethylamine	Toxicity to fish	LC50 – Oryzias latipes (Japanese medaka): 27 mg/l Exposure time: 96 h
	Toxicity to daphnia and other aquatic invertebrates	EC50 – Ceriodaphnia dubia (water flea): 4.6 mg/l Exposure time: 48 h
	Toxicity to algae	EC50 – Pseudokirchneriella subcapitata (green algae): 54 mg/l Exposure time: 72 h

	Toxicity to daphnia and other aquatic invertebrates (chronic toxicity)	NOEC – Daphnia magna (water flea): 4.2 mg/l Exposure time: 21 d
2-Amino-2-methyl-1-propanol	Toxicity to fish	Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species). May increase pH of aquatic systems to >pH 10 which may be toxic to aquatic organisms. LC50 – Lepomis macrochirus (Bluegill sunfish): 1902 mg/l Exposure time: 96 h
	Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (water flea): 193 mg/l Exposure time: 48 h
	Toxicity to algae	EC50 – Desmodesmus subspicatus (green algae):402 mg/l Exposure time: 72 h
	Toxicity to bacteria	EC50 (activated sludge): 342.9 mg/l Exposure time: 3 h
Octamethylcyclotetrasiloxane	Toxicity to fish	The estimated maximum aqueous concentration of octamethylcyclotetrasiloxane (D4) from migration to water from the product as supplied is below the D4 established no-effect threshold (<0.0079 mg/L) for aquatic organisms. LC50 – Oncorthynchus mykiss (rainbow trout): 0.022 mg/l Exposure time: 96 h
	Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (water flea): 0.015 mg/l Exposure time: 48 h
	Toxicity to algae	EC50 – Pseudokirchneriella subcapitata (green algae): 0.022 mg/l Exposure time: 72 h
	Toxicity to fish (chronic toxicity)	NOEC - Oncorthynchus mykiss (rainbow trout): 0.0044 mg/l Exposure time: 93 d
	Toxicity to daphnia and other aquatic invertebrates (chronic toxicity)	NOEC - Daphnia magna (water flea): 0.0079 mg/l Exposure time: 21 d
Titanium dioxide	Toxicity to fish	LC50 – Pimephales promelas (fathead minnow): >1.0 mg/l Exposure time: 96 h
	Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (water flea): >1.000 mg/l Exposure time: 48 h
Carbon black	Toxicity to fish	LC50 – Danio rerio (zebra fish): >1.000 mg/l Exposure time: 96 h (OECD Test Guideline 203) Remarks: (above the solubility limit in the test medium)
	Toxicity to algae	ErC50 - Desmodesmus subspicatus (green algae): >10.000 mg/l Exposure time: 72 h (OECD Test Guideline 201)
Cobalt aluminate blue spinel	No data available	
Cobalt titanate green spinel	No data available	

Antimony nickel titanium oxide yellow	No data available	
Rutile tin zinc	No data available	
Niobium sulfur tin zinc oxide	No data available	
Iron oxide red	No data available	
Yellow iron hydroxide oxide	No data available	

Persistence and degradability

Organomodified polydimethylsiloxane	No data available	
Silicon dioxide	The methods for determining biodegradability are not applicable to inorganic substances	
Diethylamine	Biodegradability	Aerobic – Exposure time: 28 d Result: 60 – 70% - Readily biodegradable OECD Test Guideline 301C)
	Theoretical oxygen demand	3.620 mg/g Remarks: (IUCLID)
2-Amino-2-methyl-1-propanol	Biodegradability	Aerobic – Exposure time: 28 d Result: 89.3% - Readily biodegradable OECD Test Guideline 301F)
Octamethylcyclotetrasiloxane	Biodegradability	Aerobic – Exposure time: 29 d Result: 3.7% - Not readily biodegradable OECD Test Guideline 310)
Titanium dioxide	The methods for determining biodegradability are not applicable to inorganic substances	
Carbon black	No data available	
Cobalt aluminate blue spinel	The methods for determining biodegradability are not applicable to inorganic substances	
Cobalt titanate green spinel	The methods for determining biodegradability are not applicable to inorganic substances	
Antimony nickel titanium oxide yellow	The methods for determining biodegradability are not applicable to inorganic substances	
Rutile tin zinc	The methods for determining biodegradability are not applicable to inorganic substances	
Niobium sulfur tin zinc oxide	The methods for determining biodegradability are not applicable to inorganic substances	
Iron oxide red	The methods for determining biodegradability are not applicable to inorganic substances	
Yellow iron hydroxide oxide	The methods for determining biodegradability are not applicable to inorganic substances	

Bioaccumulative potential

Organomodified polydimethylsiloxane	No data available
Silicon dioxide	No data available
Diethylamine	Partition coefficient: n-octanol/water (Log Pow) 0.58
2-Amino-2-methyl-1-propanol	Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Partition coefficient: n-octanol/water (Log Pow) -0.63 Test Guideline 107 or equivalent. Bioconcentration factor (BCF): < 1 Fish
Octamethylcyclotetrasiloxane	Bioaccumulation: Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

	Pimephales peomelas (fathead minnow) – 0.160 µg/l Partition coefficient: n-octanol/water (Log Pow) 6.49 Bioconcentration factor (BCF): 12.400 (US-EPA)
Titanium dioxide	No data available
Carbon black	No data available
Cobalt aluminate blue spinel	No data available
Cobalt titanate green spinel	No data available
Antimony nickel titanium oxide yellow	No data available
Rutile tin zinc	No data available
Niobium sulfur tin zinc oxide	No data available
Iron oxide red	No data available
Yellow iron hydroxide oxide	No data available

Mobility in soil	
Organomodified polydimethylsiloxane	No data available
Silicon dioxide	No data available
Diethylamine	No data available
2-Amino-2-methyl-1-propanol	Partition coefficient (Koc): 18 estimated
Octamethylcyclotetrasiloxane	Partition coefficient (Koc): 16596 OECD Test Guideline 106
Titanium dioxide	No data available
Carbon black	No data available
Cobalt aluminate blue spinel	No data available
Cobalt titanate green spinel	No data available
Antimony nickel titanium oxide yellow	No data available
Rutile tin zinc	No data available
Niobium sulfur tin zinc oxide	No data available
Iron oxide red	No data available
Yellow iron hydroxide oxide	No data available

Results of PBT and vPvB assessment	
Organomodified polydimethylsiloxane	No data available
Silicon dioxide	No data available
Diethylamine	Not considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
2-Amino-2-methyl-1-propanol	This substance is readily biodegradable and thus is not considered persistent or very persistent (P or vP). This substance has a low potential to bioaccumulate due to low affinity for octanol and high-water solubility, so it is not considered bioaccumulative or very bioaccumulative (B or vB). This substance is not classified as mutagenic, carcinogenic, or reproductive toxicant to mammalian species, and the values are much higher than the threshold for toxicity to aquatic species; thus, is not considered toxic (T).
Octamethylcyclotetrasiloxane	Octamethylcyclotetrasiloxane (D4) meets the current criteria for PBT and vPvB under REACh Annex XIII or other regionally specific criteria. However, D4 does not behave similarly to known PBT/vPvB substances. The weight of scientific evidence from field studies shows that D4 is not biomagnifying in aquatic and terrestrial food webs. D4 in air will degrade by reaction with naturally occurring hydroxyl radicals in the atmosphere. Any D4 in air that does not degrade

	by reaction with hydroxyl radicals is not expected to deposit from the air to water, to land, or to living organisms. This substance is considered to be persistent, bioaccumulating and toxic (PBT).
Titanium dioxide	Not considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Carbon black	Not considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Cobalt aluminate blue spinel	No data available
Cobalt titanate green spinel	No data available
Antimony nickel titanium oxide yellow	No data available
Rutile tin zinc	No data available
Niobium sulfur tin zinc oxide	No data available
Iron oxide red	No data available
Yellow iron hydroxide oxide	No data available

Other adverse effects: No additional information available

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods:

Resource Conservation and Recovery Act (RCRA):	This product has been evaluated for RCRA characteristics and does not meet the criteria of hazardous waste if discarded in its purchased form.
Waste from residues:	Dispose of in accordance with local regulations.
Contaminated packaging:	Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: dispose of as unused product.

SECTION 14 TRANSPORTATION INFORMATION

In accordance with ADR/RID/IMDG/IATA/ADN

UN Number: Not dangerous goods in terms of transport regulations

UN Proper Shipping Name:

Proper Shipping Name (ADR)	Not applicable
Proper Shipping Name (IMDG)	Not applicable
Proper Shipping Name (IATA)	Not applicable
Proper Shipping Name (ADN)	Not applicable
Proper Shipping Name (RID)	Not applicable

Transport Hazard Class:

ADR	Transport hazard class(es) ADR	Not Applicable
IMDG	Transport hazard class(es) IMDG	Not Applicable
IATA	Transport hazard class(es) IATA	Not Applicable
ADN	Transport hazard class(es) ADN	Not Applicable
RID	Transport hazard class(es) RID	Not Applicable

Packing Group:

Packing Group (ADR)	Not applicable
Packing Group (IMDG)	Not applicable
Packing Group (IATA)	Not applicable
Packing Group (ADN)	Not applicable
Packing Group (RID)	Not applicable

Domestic Regulation:	49 CFR	Not dangerous according to transport regulations

Special precautions for user:
Overland Transport
Transport by Sea
Air Transport

Inland Waterway Transport	Carriage Prohibited (ADN)	No
	Not subject to ADN	No
Rail Transport	Carriage Prohibited (RID)	No

Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code	Not applicable

SECTION 15 REGULATORY INFORMATION

Safety Health and Environmental Regulations/Legislation Specific for the Substance or Mixture
EPCRA – Emergency Planning and Community Right-To-Know
CERCLA Reportable Quantity

Ingredients	CAS No.	Component RQ (lbs)	Calculated Product RQ (lbs)
Diethylamine	109-89-7	100	27777

SARA 304 Extremely Hazardous Substances Reportable Quantity	This material does not contain any components with a section 304 EHS RQ
SARA 311/312 Hazards	Chronic Health Hazard
SARA 302	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
SARA 313	THIS PRODUCT CONTAINS A CHEMICAL FOR CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL. 100% Cobalt Compound 100% Nickel Compound 100% Zink Compound 46% Antimony Compound

National regulations
US State Right-To-Know Regulations

Ingredient	Cas. No.
Water	7732-18-5
Organomodified polydimethylsiloxane	Trade Secret
Silicon Dioxide	7631-86-9
Diethylamine	109-89-7
2-Amino-2-methyl-1-propanol	124-68-5
Octamethylcyclotetrasiloxane	556-67-2
Titanium Dioxide	13463-67-7
Carbon Black	1333-86-4
Cobalt Aluminate Blue Spinel	1345-16-0*
Cobalt Titanate Green Spinel	68186-85-6*

Antimony Nickel Titanium Yellow Oxide	8007-18-9*
Rutile Tin Zinc	85536-73-8*
Niobium Sulfur Tin Zinc Oxide	1374645-21-2*
Iron Oxide Red	1309-37-1
Yellow Iron Hydroxide Oxide	20344-49-4

California Prop 65	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

The ingredients of this product are reported in the following categories:

REACH	All ingredients (pre)registered or exempt
TSCA	All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.
DSL	All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from the listing on the Canadian Domestic Substances List (DSL).

Chemical Safety Assessment	No chemical safety assessment has been carried out.

SECTION 16 OTHER INFORMATION

Data Sources	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling, and packaging of substances and mixtures, amending and repeating Directives 67/548//EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. Internal technical data, data from raw material SDS's and OECD eChem Portal search results.
Other information	None

THIS INFORMATION IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY, EXPRESSED OR IMPLIED, IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTEDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.