Natural Pigments
rare artists colours and materials

Material Safety Data Sheet

Chromium Oxide Green

MSDS Number 427-15

Section 1: Product and Company Information

Product Name(s)	Chromium Oxide Green
Product Number(s)	427-15S
Company	Natural Pigments LLC PO Box 112 Willits, CA 95490 United States of America
Technical Phone	707-459-9998
Fax	408-516-9442

Section 2: Composition / Information on Ingredients

Product Name	Chromium Oxide Green
Synonyms	Viridian

Component Name	**CAS No.**	**% Composition Range**	**OSHA PEL mg/m^3**		**ACGIH TLV mg/m^3**		**NIOSH mg/m^3**	
Chemical Formula			**TWA**	**STEL**	**TWA**	**STEL**	**TWA**	**STEL**
Chromium (III) Oxide Cr_2O_3	1308-38-9	100%	0.5	N.E.[1]	0.5	N.E.	N.E.	N.E.
1) N.E. = None Established								

Section 3: Hazards Identification

Inhalation

Acute Health Effects	Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.
Chronic Health Effects	No information available
Aggravation of Pre-existing Conditions	Persons with respiratory function may be more susceptible to the effects of this substance.

Ingestion

Acute Health Effects	Slightly hazardous in case of ingestion.
Chronic Health Effects	No information available
Aggravation of Pre-existing Conditions	Medical conditions that may be aggravated by exposure: None anticipated.

Eye Contact

Acute Health Effects	Contact with eye can produce irritation.

Chronic Health Effects	Prolonged or repeated contact may produce severe irritation.
Aggravation of Pre-existing Conditions	Medical conditions that may be aggravated by exposure: None anticipated.
Skin Contact	
Acute Health Effects	May cause irritation, depending on duration of contact.
Chronic Health Effects	No information available
Aggravation of Pre-existing Conditions	Persons with pre-existing skin problems may be more susceptible to the effects of this substance.
	Health effects described above are based on published scientific information available for review and evaluated on behalf of this product. Actual signs and symptoms experienced may vary due to conditions at the time of exposure.

Section 4: First Aid Measures

After Inhalation	Remove to fresh air. If conscious, have victim clear nasal passages. Restore breathing (e.g., artificial respiration, CPR). Seek medical attention, as necessary, if symptoms develop or persist.
After Skin Contact	In case of contact, wipe off excess material from skin then immediately flush skin with plenty of water for at least 15 minutes. Wash clothing before reuse. Call a physician, if irritation occurs.
After Eye Contact	Holding eyelids open, do not allow victim to rub their eyes. Gently flush eyes for 15 minutes with large quantities of water. Seek medical attention if irritation develops or persists.
After Ingestion	Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical attention if symptoms appear.

Section 5: Fire Fighting Measures

Fire	Not considered to be a fire hazard. Not flammable.
Explosion	Not considered to be an explosion hazard.
Flash Points	Not applicable
Auto-Ignition	Not applicable
Flammable Limits	Not applicable
Extinguishing Media	This material is not combustible and is not anticipated to react with commercially employed extinguishing media. Use appropriate extinguishing media for surrounding fire.
Special Fire Fighting Procedure	As part of responding to any fire, firefighters should wear full turnout gear with a positive pressure demand mode Self-Contained Breathing Apparatus (SCBA). Contain all fire suppression run-off.
Hazardous Thermal Decomposition Byproducts	These are carbon oxides (CO, CO_2) and nitrogen oxides (NO, NO_2...).
Fire/Explosion Hazards	No information available

Section 6: Accidental Release Measures

Spill Procedures	Protect against identified hazards through use of prescribed personal protection equipment, proper work and hygiene practices. Limit foot and vehicular traffic to minimize mechanical agitation and dispersion. Employ a vacuum, equipped with HEPA (High Efficiency Particulate Air) filter, for clean-up of the spill material. If no vacuum is available, use a broom and shovel to collect excess powder in the area. Residual material should then be cleared, utilizing the

	process of wet sweeping, to avoid dust generation.
Containment Techniques	This is a solid material and will not travel far from the spill location unless mechanically agitated. Therefore, no specific containment techniques are recommended outside of restricting access to the spill location. During spill cleanup, residual wash waters should be contained and collected for proper disposal.
Spill Response Equipment	The following equipment is recommended for spill response: • vacuum, equipped with a HEPA filter • broom, wet mop • dustpan, shovel, or scoop • bags, drums, or sacks for collection Note: Non-sparking equipment may be selected, based on location specific requirements and individual work site evaluations.
Personal Protective Equipment	Employees should utilize the following protective equipment when performing spill response activities: • gloves (rubber or leather) • cotton or Tyvek coveralls • chemical/safety impact goggles • respiratory equipment recommended in Section 8

Section 7: Handling and Storage

Handling	When handling this product, all personnel are directed to: • Wear all specified elements of PPE, as directed by this document, or under location specific requirements, whichever is more conservative. • Avoid creating dust, where possible.
Storage	The following information provides the appropriate and recommended methods for safe storage and maintenance of product integrity: • Store in a cool, dry, well-ventilated area. • Product containers (paper bags, nylon bags, drums, etc.) are prone to physical damage. Care should be taken in storage and handling in order to prevent damage. • Avoid contact with oxidizers and chemically active metals, since violent reactions may occur.

Section 8: Exposure Controls / Personal Protection

Engineering Controls	If user operations generate dusts or fumes, use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.
Respiratory Protection	Dust respirator. Be sure to use an approved/certified respirator or equivalent.
Skin Protection	Wear impervious protective clothing, including gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Eye/Face Protection	Use chemical safety goggles where dusting is possible. Maintain eye wash fountain and quick-drench facilities in work area.
Work Hygiene Practices	To control potential exposures, avoid creating dust. Always wear appropriate protective equipment when handling. To avoid skin contact, gloves (leather or rubber) should be worn when handling containers of this substance. Do not eat, drink, smoke or apply cosmetics while using/handling. Always wash hands and face after handling. • Avoid direct skin contact when possible.

	• Do not eat, drink, smoke, or perform other hand-to-mouth activities in product use or handling area. • Wash thoroughly after handling this product.

Section 9: Physical and Chemical Properties

Appearance	Physical State: Solid Color: Green Form: Powder or crystals
Odor	Odorless
Molecular Weight	No information available
Ph Value	Not applicable.
Boiling Point (at 760 mm Hg)	Not applicable.
Melting Point	No information available (decomposes)
Flash Point	Not applicable.
Flammability	Not applicable.
Autoignition Temperature	Not applicable.
Explosive Properties	Not applicable.
Explosion Limits	Not applicable.
Vapor Pressure (mm Hg)	Not applicable.
Vapor Density (Air=1)	Not applicable.
Solubility	Insoluble at 20° C.
Specific Gravity (Water=1)	3.31
Viscosity	Not applicable.
Evaporation Rate (BuAc=1)	Not applicable.

Section 10: Stability and Reactivity

Stability	Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products	No information available.
Hazardous Polymerization	Will not occur.
Incompatibilities	No information available.
Conditions to Avoid	No information available.

Section 11: Toxicological Information

Investigated as a tumorigen, mutagen.

--------\Cancer Lists\----------

Ingredient	---NTP Carcinogen--- Known	Anticipated	IARC Category
Chromium (III) Oxide (1308-38-9)	No	No	3

Section 12: Ecological Information

Environmental Fate	Possibly hazardous short term degradation products are not likely.
Distribution and Persistence in the Environment	No information found.
Bioaccumulation in Aquatic Organisms	No information found.

Permissible Concentration in Water	No information found.

Section 13: Disposal Considerations

Physical/Chemical Properties	This material is a stable solid. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options.
Recommended Disposal Method	Where possible, re-blend spilled, unused, or off-specification materials with other suitable materials in support of waste minimization. Where this is not possible, dispose of material according to Federal (country-specific), state, and local requirements.
Empty Containers	This product may be shipped in paper or nylon bags, steel drums, plastic or steel pails, or intermediate bulk containers. All residual material must be emptied and the containers recycled where possible. Where recycling is not possible, containers must be disposed of in accordance with Federal (country-specific), state, and local regulations. If questions exist about disposal, please contact the manufacturer for additional information.

Section 14: Transportation Information

Not regulated.

Section 15: Regulatory Information

--------\Chemical Inventory Status - Part 1\---------------------------------

Ingredient	TSCA	EC	Japan	Australia
Chromium (III) Oxide (1308-38-9)	Yes	Yes	Yes	Yes

--------\Chemical Inventory Status - Part 2\---------------------------------

		--Canada--		
Ingredient	Korea	DSL	NDSL	Phil.
Chromium (III) Oxide (1308-38-9)	Yes	Yes	No	Yes

--------\Federal, State & International Regulations - Part 1\----------------

	-SARA 302-		------SARA 313------	
Ingredient	RQ	TPQ	List	Chemical Catg.
Chromium (III) Oxide (1308-38-9)	No	No	No	Chromium com

--------\Federal, State & International Regulations - Part 2\----------------

		-RCRA-	-TSCA-
Ingredient	CERCLA	261.33	8(d)
Chromium (III) Oxide (1308-38-9)	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No
Reactivity: No (Pure / Solid)

Section 16: Labeling Information

Product Name	Chromium Oxide Green
Ingredients	Chromium Oxide, Silicate
Signal Word	WARNING!

Hazard Description	May be harmful if inhaled. May cause irritation to eyes and respiratory tract. Slightly toxic if ingested.
Precautions	Do not get in eyes. Wash thoroughly after handling. Do not breathe dust. Keep container closed. Use only with adequate ventilation.
First Aid Procedures	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person. In all cases call a physician if symptoms develop.
Fire Instructions	Select fire extinguishment media for surrounding materials.
Spill or Leak Procedures	Wear appropriate protective equipment. Limit foot and vehicular traffic to minimize agitation and dispersion. Employ a vacuum (equipped with a HEPA filter), broom and shovel, and wet sweeping for spill clean-up. Avoid creating dust. Do not allow this product or run-off to reach waterways.
Handling and Storage Instructions	Wear specified elements of personal protective equipment, as defined in the Material Safety Data Sheet (MSDS), or follow location specific instructions for handling this product. Store in a cool, dry, well-ventilated area. Specific instructions concerning directions for use and handling may be found in the MSDS or may be supplied by the manufacturer.

Section 17: Other Information

HMIS Ratings	Health: 2 (Moderate) Flammability: 0 (None) Reactivity: 1 (Low) Personal Protection: E
NFPA Ratings	Health: 2 (Moderate) Flammability: 0 (None) Reactivity: 1 (Low)
Date	24 August 2007
Disclaimer	The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Natural Pigments, LLC shall not be held liable for any damage resulting from handling or from contact with the above product.

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