Material Safety Data Sheet

Chromium oxide green

Product Code: PS-IN0040
Department: inorganic dry pigments
C.A.S.: 1308-38-9

Section: 1 Identification

Product Name:	Crome oxide green
Chemical Family:	Inorganic Metal Oxide
Use:	Inorganic colorant

Section: 2 Hazard Identification

While this material is not considered hazardous by the Workplace Hazardous Materials Information System (WHMIS) 2015 requirements as defined in the Hazardous Product Act (HPA) and the Hazardous Products Regulations (HPR), the SDS contains valuable information critical to the safe handling and proper use of the product. The SDS should be retained and available for employees and other users of this product.

SGH Label Elements

Signal Word

GHS Classification

Hazard Statements

No known significant effects or critical hazards.

Precautionary Statements

P260 Do not breathe dust.

Section: 3 Composition / Information on Ingredients

Hazardous ingredients

CAS-No.	Chemical Name	Concentration
1308-38-9	Chromium Oxide	98.5 - 99.5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.
There are no 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.

Section: 4 First-Aid Measures

Description of 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. Get medical attention if irritation occurs.
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if symptoms develop.
Skin contact:	Flush contaminated skin with plenty of water. Remove contaminated clothing and skin contact. Seek medical attention if symptoms develop.
Ingestion:	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If swallowed and if exposed person is conscious, give small amounts of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Seek medical attention if symptoms develop.

Potential acute health effects

Eye contact:	May cause mechanical irritation (scraping).
Inhalation:	No known significant effects or critical hazards.
Skin contact:	May cause mechanical irritation (scraping).
Ingestion:	No known significant effects or critical hazards.

Signs / symptoms of overexposure

Eye contact:	No specific data.
Inhalation:	No specific data.
Skin contact:	No specific data.
Ingestion:	No specific data.

Potential chronic health effects:	No known significant effects or critical hazards.
Notes to Physician:	Treat symptomatically. No special treatment.
Protection of first-aiders:	No special measures required.

See Toxicological Information (section 11)

Section: 5 Fire-Fighting Measures

Suitable extinguishing media:	Use an extinguishing agent suitable for the surrounding fire. In case of fire, use water spray (fog), foam or dry chemical.
Incompatible Extinguishing Media:	None known.
Specific hazards for the product:	No specific risk of fire or explosion.
Hazardous thermal decomposition products:	No specific data.
Special protective measures for fire-fighters:	Not applicable.
Special protective equipment for Fire Fighters:	Firefighters 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 measures:	No action shall be taken involving any personal risk or without suitable training. Evacuate the surroundings. Preventing access to unwanted or unprotected persons. Do not touch or walk through spilled material. Avoid breathing dust. Wear appropriate personal protective equipment.
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 containment and Cleaning:	Move containers away from spill area. Approach the emanations in the same direction as the wind. Collect spillage with a vacuum cleaner or brush and place in a properly identified waste container. Avoid creating a cloud of dust and preventing wind dispersal. Dispose of through an authorized specialist company. Note: See Section 1 for emergency information and see Section 13 for waste disposal. Prevent entry into sewers, watercourses, basements or confined areas.

Section: 7 Handling And Storage

Protective measures:	Avoid breathing dust. Remove contaminated clothing and protective equipment before entering eating areas. Persons working with this product should wash their hands and face before eating, drinking or smoking. Provide appropriate personal protective equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored or processed.
Storage conditions:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated place away from incompatible substances (see Section 10), food and drink. Keep container tightly closed when not in use. Open containers should be carefully closed and kept in a vertical position to prevent leakage. Do not store in unlabeled containers. Use an appropriate container to avoid environmental contamination. Empty containers or liners may retain product residues.

Section: 8 Exposure Control/Personal Protection

Ingredient	Exposure Limits
	Chromium Oxide ACGIH TLV (United States, 3/2015) TWA: 0.5 mg / m³, (measured as Cr) 8 hours. Form: Inorganic OSHA PEL (United States, 2/2013) TWA: 0.5 mg / m³, (as Cr) 8 hours.

Recommended monitoring procedures:	If this product contains ingredients with exposure limits, it may be necessary to carry out biological monitoring or monitoring of personnel, the atmosphere at the workplace to determine efficacy Ventilation or other control measures and / or the need for respiratory protection.
Appropriate Engineering Controls:	Use only in well ventilated areas. If user manipulations cause dust, fumes, gases, vapors or mists, use enclosed enclosures, exhaust ventilation at the source, or other built-in automatic control systems to Exposure limit of the technician to airborne contaminants below recommended or legal limits.
Personal protection	
Hygiene measures:	After handling chemicals, thoroughly wash your hands, forearms and face before eating, smoking, using the toilet and after you have finished your work. Use appropriate techniques to remove contaminated clothing. Wash contaminated clothing before reuse. Ensure eyewash stations and decontamination showers are installed near workstations.
Respiratory protection:	Dust mask.
Skin protection:	Wear suitable protective clothing and gloves. Suitable protective footwear.
Eye / face protection:	In case of contact with the product, wear safety glasses with side shields

Section: 9 Physical and Chemical Properties

Physical State:	Solid (powder)
Color:	Green
Odor:	odorless
PH:	5 to 7 [Conc. (% W / w): 5%]
Boiling point:	4000 °C (1013 hPa)
Melting point:	2435 °C (4415 °F)
Flash point:	Not available.
Density:	5.2 g / cm³ [20 °C (68 °F)]
Solubility in water:	Insoluble in the following materials: cold water.

Section: 10 Stability And Reactivity

Chemical stability:	The product is chemically stable under standard ambient conditions (room temperature).
Possibility of hazardous reactions:	No information available
Conditions to avoid:	no information available
Incompatible Materials:	No information available
Hazardous Decomposition:	Products No information available

Section: 11 Toxicological Information

Possible routes of exposure:	Skin contact. Eye contact. Inhalation. Ingestion.
Eye contact:	May cause echogenic irritation (scraping).
Inhalation:	No known significant effects or critical hazards.
Skin contact:	May cause mechanical irritation (scraping). Ingestion: No known significant effects or critical hazards.

Potential chronic health effects
Short-term exposure

Possible immediate effects:	Not available.
Possible delayed effects:	Not available.

Long-term exposure

Possible immediate effects:	Not available.
Possible delayed effects:	Not available.
Carcinogenicity:	No known significant effects or critical hazards.
Mutagenicity:	No known significant effects or critical hazards.
Teratogenicity:	No known significant effects or critical hazards.
Developmental effects:	No known significant effects or critical hazards.
Effects on Fertility:	No known significant effects or critical hazards.

acute toxicity

Ingredient	Result	Species	Dose	Exposure	Test
Chromium Oxide	LD50 Oral	Rat	> 5000 mg / kg	-	OECD 401 Acute Oral Toxicity
Chromium Oxide	LC50 Inhalation Dust and mist	Rat	> 5.41 mg / l	4 hours	OECD 403 Acute inhalation toxicity

Irritation / Corrosion

Ingredient	Result	Species	score	Exposure	observation
Chromium Oxide	Skin - Erythema / Eschar	Rabbit	0	4 hours / 500mg	7 days
	Eyes - Opacity of the cornea	Rabbit	0	4 hours / 100µl	7 days
	Eyes - Conjunctival edema	Rabbit	0	4 hours / 100µl	7 days
	Eyes - Iris lesion	Rabbit	0	4 hours / 100µl	7 days

Conclusion / Summary

Skin: Chromium Oxide:	Non-irritating
Eyes: Chromium Oxide:	Not irritating.

Sensitization

Ingredient	Route of exposure	Species	Result
Chromium Oxide	Skin	Guinea pig	Non-sensitizing

Chronic Toxicity

Ingredient	Result	Species	Dose	Exposure
Chromium Oxide	Subchronic NOAEL Oral	Rat-Male; Female	2000 mg / kg bw / day	90 days; 5 days per week
	Subchronic LOAEL Inhalation Dust and mist	Rat - Male, Female	4.4 mg / m^3	6 hours; 5 days per week Duration of application: 65 Days

Mutagenicity

Ingredient	Test	Experience	Result
Chromium Oxide	OECD 471 Reverse mutation assay on	Experiment: In vitro Subject: Bacteria Of bacteria Metabolic activation: with / without S9	Negative
	OECD 474 Micronucleus test On the erythrocytes of	Experiment: In vivo Subject: Mammal-Animal Cell: germ	Negative

Carcinogenicity

Ingredient	Result	Species	Dose	Exposure
Chromium Oxide	Negative - Oral	Rat - Male, Female	-	2 years; 5 days per week

Ingredient	CAS	CIRC	NTP	OSHA
Chromium Oxide	1308-38-9	Not classified.	Not classified	Not classified.

Section: 12 Ecological Information

Toxicity

Ingredient	test	Result	Species	Exposure
Chromium Oxide	ISO 8192	Acute EC50> 10000 mg / l	Bacteria - Activated sludge	3 hours
	ISO 7346-1*	Acute LC50> 10000 mg / l	Fresh water Fish - Danio rerio	96 hours
	OECD 210 **	Chronic NOEC 10000 mg / l	Fresh water Fish - Danio rerio	30 days

* (Determination of the Acute Lethal Toxicity of Substances to a Freshwater Fish - Part 1: Static Method)
** Fish, early stage toxicity test.

Persistence and degradation: Not available.
Mobility in soil
Soil / water partition coefficient (KOC): Not available.
Other adverse effects: No known significant effects or critical hazards.

Section: 13 Disposal Considerations

Disposal methods: It is important to minimize or avoid generation of waste wherever possible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Have the loss in accordance with applicable federal, provincial and local regulations.

Section: 14 Transport Information

TDG Classification: Not regulated.
IMDG Class: Not regulated.
IATA-DGR class: Not regulated.

Section: 15 Regulatory Information

CEPA Status: All components of this product are listed
U.S. Toxic Substances Control Act: Listed on TSCA Inventory
Hazardous Materials Information System
Health: 0
Flammability: 0
Physical hazards: 0

National Fire Protection Association (United States)
Health: 0
Flammability: 0
Instability/Reactivity: 0

Section: 16 Other Information

Training Tips Provide adequate information, instruction and training of operators.

GHS labeling Precautionary statements	P260 Do not breathe dust..
reference	manufacturer's material safety data sheet
prepared by	Kama pigments

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