



ARLIMIN

# SAFETY DATA SHEET

## Chromium Oxide Green

Revised 9.20.2017

### 1. IDENTIFICATION

|                     |   |
|---------------------|---|
| Product name        | Chromium Oxide Green  |
| Synonyms            | Chromium (III) oxide<br>Pigment Green 17 , 5089P, RG-001                                    |
| Primary product use | Industrial coloring agent, Inorganic pigment  |
| Supplier            | Arlimin Industries LLC<br>P.O. Box 271497<br>Fort Collins, CO 80527<br>Main #: 832-280-9980 |
| Emergency contact   | Chemtrec 800-424-9300   |

### 2. HAZARD(S) IDENTIFICATION

Classification of the substance/mixture: Not classified  
GHS label Elements  
Signal word: No signal word  
Hazard statements: No known significant effects or critical hazards.  
Precautionary statements: Not applicable.

Other hazards not classified: Chromium oxide green is not classified as a substance that constitutes a hazard. Chromium oxide green does not constitute direct threat to the health or life of humans; however, improper handling, long exposure, and individual sensitivity of the body to the product may cause, depending on the exposure route:

- irritation and burning sensation in the eye, and lacrimation;
- irritation of the respiratory tract, coughing, and sneezing;
- irritation of the gastrointestinal tract.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

|                      |  |
|----------------------|--|
| Chromium (III) Oxide |  |
| Synonyms             | Chromium Oxide Green, Pigment Green 17 |
| CAS number           | 1308-38-9                              |
| WE number (EINECS)   | 215-160-9                              |
| Registration number  | 01-2119433951-39-0021                  |
| GHS Classification   | Not classified                         |

#### 4. FIRST AID MEASURES

**Eye contact** – immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check and remove contact lenses, if present. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

**Skin contact** – no special measures required.

As a part of prophylaxis, it is recommended to take off contaminated clothing, wash contaminated skin areas thoroughly with water, and then soap and water.

**Inhalation of dust** – move exposed person to fresh air. Keep the person warm and at rest. If the person does not breathe, breathes irregularly or the breath is held, apply artificial respiration or provide oxygen by trained personnel. Get medical attention in case symptoms occur. If the person is unconscious, place him/her in the recovery position onto his/her side, and immediately call medical help. Keep the respiratory tracts open. Loosen tight clothing, e.g. a collar, tie or belt.

**Ingestion** – no special measures required.

As a part of prophylaxis, it is recommended to rinse the mouth. Give a large amount of water to drink only if the person is conscious. If the person is conscious, induce vomiting.

**In case of alarming symptoms of persistent complaints, consult a physician.**

#### 5. FIRE-FIGHTING MEASURES

In the event of a fire, use fire-extinguishing devices that are proper for the burning materials. There are no known fire-extinguishing agents that must not be used. No specific fire or explosion hazard.

The individual protection equipment to be used by the firemen must be suitable for the burning materials.

Use respiratory tract protection and eye protection equipment in the event of dusting of the substance.

#### 6. ACCIDENTAL RELEASE MEASURES

Safety measures in relation to people: No special safety measures are required. In the case of dusting, protect the eyes and the respiratory tract, and ensure proper ventilation. Use appropriate personal protection equipment.

Safety measures pertaining to environmental protection: Do not allow chromium oxide green to enter the sewer system or water courses and reservoirs. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods of removal and neutralization: Collect the spilled product into a container. Depending on the extent and type of contamination, the substance should be handed over to specialized entities for the purpose of disposal.

#### 7. HANDLING AND STORAGE

**Handling the product:** Use the product in accordance with its intended use. Observe occupational health and safety and fire safety regulations. Use appropriate personal protection equipment.

Ensure proper ventilation of job stations. When working with the product, it is forbidden to eat and drink. Before entering eating areas, take off the contaminated clothing and protective equipment. Wash hands before breaks and after work.

##### **Storage and transport**

Chromium oxide green must be stored in tight containers, in dry, clean, and roofed premises.

The product has a tendency to absorb moisture from its surroundings when stored in open packaging. Chromium oxide green is classified as non-hazardous substance under the applicable ARD/RID regulations. **Conditions and agents that must be avoided** – moisture.

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

### Exposure Limits - Chromium (III) Oxide

ACGIH TLV (United States, 4/2014).

TWA: 0.5 mg/m<sup>3</sup>, (measured as Cr) 8 hours. Form: Inorganic

OSHA PEL (United States, 2/2013).

TWA: 0.5 mg/m<sup>3</sup>, (as Cr) 8 hours.

Exposure control parameters (NDS, NDSCh, NDSP):

- NDSCh – 0.5 mg/m<sup>3</sup> calculated as Cr(III)
- NDSCh and NDSP – not determined

Delivered no-effect level (DNEL):

- DNEL for an employee
  - acute exposure – local effect – inhalation: 2.0 mg/m<sup>3</sup> expressed in Cr(III)
  - persistent exposure – local effect – inhalation: 0.5 mg/m<sup>3</sup> expressed in Cr(III)
- DNEL for entire population –
  - persistent exposure – local effect – inhalation: 0.5 mg/m<sup>3</sup> expressed in Cr(III)

Predicted no-effect concentration (PNEC):

- for water environment
  - PNEC fresh water [mg/L] – 0.0047
  - PNEC sea water [mg/L] – 0.0047
  - PNEC periodic discharge to water [mg/L] – 0.0047
- for sediments
  - PNEC (fresh-water) sediment [mg/kg of sediment s.m.] – 18.2
  - PNEC (sea-water) sediment [mg/kg of sediment s.m.] – 1.31
- for wastewater treatment plant: PNEC [mg/l] – 10 for soil: PNEC [mg/kg.w.] – 3.2

### Personal protection equipment

Use only with adequate ventilation. When working with the product, it is recommended to use the following personal protective equipment: protective clothing, gloves, and shoes. In the event of dusting, it is necessary to use NIOSH approved respirators and protective goggles.

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, gasses or dusts.

Personal protection equipment for the body should be selected based on the tasks performed and the assessment of potential risk, and should be approved by a qualified person before the work begins.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                             |                        |
|-----------------------------|------------------------|
| <b>Form</b>                 | solid                  |
| <b>Color</b>                | green                  |
| <b>Scent</b>                | scentless              |
| <b>Boiling point</b>        | approx. 4,000 °C       |
| <b>Melting point</b>        | approx. 2435 °C        |
| <b>Density</b>              | 5.22 g/cm <sup>3</sup> |
| <b>Solubility in water</b>  | not soluble in water   |
| <b>Combustibility</b>       | not combustible        |
| <b>Explosive properties</b> | not explosive          |
| <b>Oxidizing properties</b> | none                   |

## 10. STABILITY AND REACTIVITY

|                                     |   |
|-------------------------------------|---|
| Reactivity:                         | No specific test data related to reactivity available for this product or its ingredients.  |
| Chemical stability:                 | The product is stable   |
| Possibility of hazardous Reactions: | Under normal conditions of storage and use, hazardous reactions will not occur.             |
| Conditions to avoid:                | No specific data.   |
| Incompatible materials:             | No specific data.   |
| Hazardous decomposition products:   | Under normal conditions of storage and use, hazardous decomposition should not be produced. |

## 11. TOXICOLOGICAL INFORMATION

Data based on the Chemical Safety

Report. Acute toxicity:

- oral application – LD<sub>50</sub>: >5000 mg/kg of weight,
- inhalation – LC<sub>50</sub>: >5.41

mg/L. Repeated-dose toxicity:

- oral application – NOAEL: 2000 mg/kg of weight/day,
- inhalation – LOAEC: 4.4 mg/m<sup>3</sup>

Chromium Oxide CAS # 1308-38-9 IARC-Not classified NTP- Not classified OSHA-Not classified

## 12. ECOLOGICAL INFORMATION

Hazard to the natural environment - Chromium oxide green is classified as a substance that does not cause any hazards to the environment.

When the substance is used in accordance with its intended use and professionally, there are no environmental problems; however, one must not drain chromium oxide green into potable water intakes, the soil, water courses, and sewer systems.

Pursuant to the Regulation of the Minister of the Environment, the permitted chrome contamination is:

- for surface water class I and II – general chrome (total <sup>+Cr3</sup> and <sup>+Cr6</sup>): ≤0.05 mg Cr/l,
- tanning industry wastewater – general chrome: 1.0 mg Cr/l,
- other types of wastewater – general chrome: 0.5 mg Cr/l.

Data based on the Chemical Safety Report.

Long-term toxicity for freshwater invertebrates – EC10/LC10: 0.02 mg/L Long-term effects for organisms living in the sediments:

- EC50/LC50 for freshwater sediments: 18,200 mg/ kg of sediment s.m.
- EC50/LC50 for sea-water bottom sediments: 20771 mg/ kg of sediment s.m.

EC10/LC10 for sea-water bottom sediments: 1310 mg/ kg of sediment s.m.

**13. DISPOSAL CONSIDERATIONS**

*Disposal methods*

The generation of waste should be avoided or minimized wherever possible. 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. Waste disposal should be in accordance with existing federal state, provincial and or local environmental controls laws.

*RCRA classification:*

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

**14. TRANSPORT INFORMATION**

DOT CLASSIFICATION: Not classified

**15. REGULATORY INFORMATION**

-SARA 311/312 : None

-SARA Title III Section 302 Extremely Hazardous Substances : None

-SARA Title III Section 313 Toxic Chemicals

| <u>Ingredient name</u> | <u>CAS number</u> | <u>Concentration (%)</u> |
|------------------------|-------------------|--------------------------|
| Chromium Oxide         | 1308-38-9         | 95 - 100%                |

-US EPA CERCLA Hazardous Substances (40 CFR 302)

| <u>Ingredient name</u> | <u>CAS number</u> | <u>RQ</u>  |
|------------------------|-------------------|--|
| Chromium Oxide         | 1308-38-9         | Included in the regulation but with no values. See regulation for further details. |

| <u>Ingredient name</u> | <u>CAS number</u> | <u>State Code</u>            | <u>Concentration (%)</u> |
|------------------------|-------------------|------------------------------|--------------------------|
| Chromium Oxide         | 1308-38-9         | MA - S, NJ - HS, PA - RTK HS | 95 - 100%                |

Massachusetts Substances: MA - S  
 Massachusetts Extraordinary Hazardous Substances: MA - ExtraHS  
 New Jersey Hazardous Substances: NJ - HS  
 Pennsylvania RTK Hazardous Substances: PA - RTK HS  
 Pennsylvania Special Hazardous Substances: PA - Special HS

California Prop. 65

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

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

The concentrations reported below in units of parts per million (ppm) or parts per billion (ppb) are maximum values., Trace heavy metal content reported below is based on random sample analyses and content may vary from batch to batch.

## **16. OTHER INFORMATION**

### *Literature:*

*Chemical Safety Report, Physico-chemical manual, Tenets of inorganic chemistry - A. Bielaoski; Harmful substances in the industry - N. Łazariew.*

*The information contained herein describe solely the safety requirements pertaining to the chromium oxide green offered by our company.*

*It is based on our current knowledge and on the literature, and is prepared in good faith.*

*The data presented herein does not constitute a quality specification of the product; consequently, it may not be a basis for quality-related complaints under the guarantee or warranty.*

*The present document must be considered only as an aid in safe use of the product.*

**Updated on: -9.20.2017**

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