



SAFETY DATA SHEET

Chromium Oxide Green

1. Identification

Product identifier

Product name Chromium Oxide Green

Product number G4099,G5099,G6099,G7099,G8599,G6099HP,GA4090,GA5090,GA6090,Accrox R,M100C,GO3955,GO4099R,GO6099R

CAS number 1308-38-9

Recommended use of the chemical and restrictions on use

Application Industrial color

Details of the supplier of the safety data sheet

Supplier Huntsman Pigments Americas LLC
P.O. Box 4980
The Woodlands, TX 77387
+1 301 210 3400 / +1 323 269 7311
MSDS@huntsman.com

Emergency telephone number

Emergency telephone CHEMTREC: (800) 424-9300 (Contract No: 191118)

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard.

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

CHROMIUM (III) OXIDE > 98%

CAS number: 1308-38-9 REACH registration number: Proprietary

Classification

Not Classified

The Full Text for all Hazard Statements are Displayed in Section 16.

Chromium Oxide Green

Composition comments Pigment Green 17, C.I. 77288

4. First-aid measures

Description of first aid measures

Inhalation	If exposed to excessive levels of dust or fumes, remove to fresh air. Get medical attention if cough or other symptoms develop.
Ingestion	Contact physician if larger quantity has been consumed.
Skin Contact	Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

Most important symptoms and effects, both acute and delayed

Inhalation	Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.
Ingestion	Due to the physical nature of this material it is unlikely that swallowing will occur.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	May cause temporary eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctor No specific recommendations.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Flammability Class	No Uniform Fire Code noted.
Specific hazards	Fire conditions may produce small amounts of hexavalent chromium.

Advice for firefighters

Protective actions during firefighting	N/A
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Special protective equipment for firefighters	Use protective equipment appropriate for surrounding materials.
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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	For personal protection, see Section 8.
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Environmental precautions

Environmental precautions	Avoid spreading dust or contaminated materials. Avoid discharge into drains or watercourses or onto the ground. Avoid the spillage or runoff entering drains, sewers or watercourses.
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Methods and material for containment and cleaning up

Chromium Oxide Green

Methods for cleaning up Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Avoid generation and spreading of dust. Avoid the spillage or runoff entering drains, sewers or watercourses.

Reference to other sections For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Do not eat, drink or smoke when using the product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. For pallets wrapped in polyethylene plastic, removal may cause an electrostatic spark; removal of the wrap should not be done in the presence of flammable vapors.

Conditions for safe storage, including any incompatibilities

Storage precautions Keep container dry.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

CHROMIUM (III) OXIDE

Long-term exposure limit (8-hour TWA): ACGIH 0.5 mg/m³

Short-term exposure limit (15-minute): ACGIH

ACGIH = American Conference of Governmental Industrial Hygienists.

Ingredient comments Threshold Limit Values (2005), ACGIH, by the American Conference on Governmental Industrial Hygienists.

Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of dust. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

The following protection should be worn: Chemical splash goggles.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.

Other skin and body protection

Provide eyewash station and safety shower.

Hygiene measures

No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products. Wash hands at the end of each work shift and before eating, smoking and using the toilet.

Respiratory protection

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

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9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Dusty powder.
Color	Green.
Odor	Odorless.
pH	pH (concentrated solution): pH (diluted solution): 5 - 9 @ 10%
Melting point	2266°C
Initial boiling point and range	Not relevant.
Relative density	5.1 @ kg/m ³ °C
Bulk density	600-1500 kg/m ³
Solubility(ies)	Insoluble @ °C Insoluble in water.
Other information	No information required.
Volatile organic compound	This product contains a maximum VOC content of None .

10. Stability and reactivity

Reactivity	The following materials may react with the product: molten alkali at high temperature chlorine trifluoride producing flame glycerol - may produce an explosion
Stability	Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	Will not polymerize.
Conditions to avoid	Water, moisture.
Materials to avoid	Chromic oxide may react with molten alkali at high temperatures under oxidizing conditions. May react with lithium, nitroalkanes, dirubidium acetylide, oxygen difluoride and other strong oxidizers. Reaction with chlorine trifluoride produces flame. Contact with glycerol and chromic oxide may produce an explosion.
Hazardous decomposition products	A small amount (<0.1% as Cr) of reversion to hexavalent chromium may occur if the dry chromium (III) oxide powder is exposed to elevated temperatures.

11. Toxicological information

Information on toxicological effects

Toxicological effects	From literature surveys undertaken for Chromium (III) oxide in powder form: LD50: >5000 mg/kg (oral rat). Chromic oxide fed to rats in dosages up to 5% for 2 years produced no treatment related effects.[Ivankovic S. & Preussman R., Food Cosmet. Toxicol. 13, 347-351 (1975).] Dermal: non-irritant Rabbit skin (24 h)
Other health effects	IARC Not Listed. NTP Not Listed. OSHA Not Regulated. This product is a trivalent chromium compound that contains less than 100 ppm hexavalent chromium. Trivalent chromium is not specifically listed as a carcinogen by NTP, IARC or ACGIH.
Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	5,000.0

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Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 5.41

General information	No specific health hazards known.
Inhalation	Dust may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing. Prolonged inhalation may be harmful.
Ingestion	No harmful effects expected from quantities likely to be ingested by accident. Possible nausea or diarrhea if large amounts ingested.
Skin Contact	No specific health hazards known. Substance may cause slight skin irritation.
Eye contact	Dust in the eyes will cause irritation. May cause slight irritation.
Route of entry	Inhalation Skin absorption Ingestion. Skin and/or eye contact

12. Ecological Information

Ecotoxicity From literature surveys undertaken for Chromium (III) oxide in powder form:- Aquatic toxicity (fish) = Zebra barb.: Lc0 (96 hours): >10000 mg/l Bacterial toxicity: harmless against Escherichia coli at 1000 mg/l and Pseudomonas fluorescens at >10000 mg/l. Water hazard classification: according to the present state of knowledge, this pigment slurry is not hazardous to water. Biological or Chemical Oxygen Demand: Slight.

Toxicity

Toxicity Not considered toxic to fish.

Persistence and degradability

Persistence and degradability The product contains only inorganic substances which are not biodegradable.

Bioaccumulative potential

Bio-Accumulative Potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Mobility in soil

Mobility The product is insoluble in water.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Waste to be treated as controlled waste. Disposal in accordance with federal, state and local regulations.

Disposal methods Reuse or recycle products wherever possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Chromium Oxide Green

Waste class

Product does not exceed the RCRA extraction procedure limit of 5 PPM for total soluble chromium as shipped from the manufacturer. This product when discarded as sold is not an RCRA hazardous waste. 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. (40CFR261.20-24). Chemical processing of this product (particularly at elevated temperatures) can cause chemical reactions which produce substances which will exceed the RCRA limits. Wastes from this product should be tested to determine the proper waste classification. Incineration is not recommended as some trivalent chromium may convert to the hexavalent form.

14. Transport information

General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

Not applicable.

DOT hazard class

Not regulated.

DOT hazard label

No DOT label requirement noted

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

No.

Special precautions for user

Not applicable.

Transport in bulk according to
Annex II of MARPOL 73/78
and the IBC Code

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

Chromium Oxide Green

CHROMIUM (III) OXIDE

0.10 %

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

US State Regulations

State Regulations Comments California Prop 65 Warning: This product contains chemicals, as trace impurities and not intentionally added, known to the state of California to cause cancer (C) and birth defects or other reproductive (R) harm.

Massachusetts "Right To Know" List

CHROMIUM (III) OXIDE

Yes.

Rhode Island "Right To Know" List

CHROMIUM (III) OXIDE

Not listed.

Minnesota "Right To Know" List

CHROMIUM (III) OXIDE

Not listed.

New Jersey "Right To Know" List

CHROMIUM (III) OXIDE

Yes.

Pennsylvania "Right To Know" List

CHROMIUM (III) OXIDE

Not listed.

Inventories

EU - EINECS/ELINCS

EINECS

All the ingredients are listed or exempt.

Canada - DSL/NDSL

DSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

No.

Australia - AICS

All the ingredients are listed or exempt.

Japan - MITI

All the ingredients are listed or exempt.

Korea - KECI

All the ingredients are listed or exempt.

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China - IECSC

All the ingredients are listed or exempt.

Philippines - PICCS

All the ingredients are listed or exempt.

New Zealand - NZIOC

All the ingredients are listed or exempt.

16. Other information

Revision date	6/9/2015
Revision	14
Supersedes date	5/28/2015
SDS No.	17869
SDS status	Approved.

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