

Chrome Oxide Green G

According to EC Directive 91/155/EEC

1. Identification

Product Name: Chrome Oxide Green G

Chemical Name: Chromium (III) Oxide

CAS No. 1308-38-9, **EINECS No.** 215-160-9

Manufacturer/Supplier Identification

Manufacturer/Supplier: Formula Chemicals Co. Ltd.

Emergency telephone number: +886-922582639; +886-2-26685339

2. Composition/Information on Ingredients

Chemical Formula: Cr₂O₃

Composition: greater than 99% Cr₂O₃

3. Hazards Identification

This product is not listed as a dangerous substance in appendix 1 of the 25th amendment 98/98/CE of directive 67/548/CE. No specific hazards are encountered in normal use. No labeling is required in accordance with EEC Directives. When handling, observe general precautions for chemical substances and avoid the formation of dust.

4. First aid measures

Inhalation: Possibility of respiratory and throat irritation. Remove person to fresh air and gargle well. If symptoms persist, seek medical attention.

Skin contact: Irrigate thoroughly with cold water. Remove contaminated clothing. If symptoms persist seek medical attention.

Eye contact: Flush eyes with plenty of water thoroughly holding eyelids apart to ensure flushing of entire eye surface. If symptoms persist seek medical attention.

Ingestion: Drink plenty of water. Attempt to make subject vomit. Seek medical attention.

5. Fire - Fighting Measures

Chrome oxide pigments are non-combustible and there is no evidence of fire risk. In case surrounding fire, water, dry chemical, carbon dioxide and other extinguisher can be used.

6. Accidental Release Measures

If necessary, wear a dust mask.

Do not allow the product to enter drains or waterways.

Collect spilled product in a suitable labeled container avoiding formation of dust.

7. Handling and Storage

Advice on safe handling: When handling this product, avoid exposure and minimize inhalation, ingestion, eye or skin contact. It is advisable to provide the work area with adequate local exhaust ventilation where dust may be generated. It is advisable to use personal protective equipment. Wash hands thoroughly after handling. If possible, take a shower at the end of work shift.

Storage conditions: It is recommended that the material is stored in closed containers in a place protected from rain and bad weather conditions.

8. Exposure/ Protection method

a). Applicable exposure levels are: TLV-TWA: 0.5mg/m³ as Cr (ACGIH).

b). Personal Protective Equipment:

-Respiratory protection: use dust mask if ventilation is inadequate.

-Skin: use normal work-wear resistant to dust, closed at wrist and ankles, and fastened shoes.

-Eyes : use goggles.

-Hands: wear rubber or PVC gloves.

The product can be oxidized in a small part to hexavalent chrome if used at high temperatures in oxygen containing atmospheres. Hexavalent chrome is identified as harmful to health. Ensure that worker exposure is below the relevant limits. Exposure limits applicable for hexavalent chrome:

ACGIH TLV: 0.01mg/m³ as insoluble Cr (VI) ; 0.05mg/m³ as soluble Cr (VI)

OSHA PEL: 0.1mg/m³ as Cr₂O₃ TWA

NIOSH REL: 0.025mg/m³ TWA

9. Physical and Chemical Data

Formula:Cr₂O₃

Molecular weight: 152

Appearance: fine powder.

Color: green.

Odor: no distinctive odor

PH(5% aqueous solution, room temperature): 5—7

Melting point: above 2400°C

Boiling point: 4000°C

Solubility: insoluble in water and inorganic solvents, very slightly soluble in acidic solutions.

Ignition point: n.a.

Autoignition: none

Flammability: non-flammable

Explosive limits: n.a.

Vapour pressure: n.a.

Density: 5.2g/cm³

Bulk density:0.8-1.1g/cm³

10. Stability and Reactivity

Stability: This product is stable.

Conditions to avoid: Avoid conditions that encourage dust formation.

Hazardous decomposition products: This product may be oxidized in small amounts to hexavalent chromium when it is used at elevated temperatures in an oxygen-containing atmosphere.

11. Toxicology information

Acute toxicity: LD50/oral/rat: > 5000mg/kg

Skin contact: Contact with healthy skin does not cause irritation. In susceptible people sensitization is possible.

Eye contact: Exposure will cause moderate irritation due to mechanical action and might cause conjunctivitis.

Inhalation: Can provoke irritation of respiratory tract.

Chrome (III)Oxide is not considered cancerogenic (IARC 1990; IPCS1988).

12. Ecological information

Product is inert and insoluble.

For discharges to water and atmosphere refer to national and local regulations.

13. Stability and Reactivity

Stability: Generally considered stable

Thermal decomposition: >1500°C

Hazardous decomposition products: No hazardous decomposition products known.

14. Transport

There are no specific transportation precautions required. (Product is not subject to ADR.)

15. Regulatory information

This product is not listed as a dangerous substance in appendix 1 of the 25th amendment 98/98/CE of directive 67/548/CE. No special labeling is required. This material safety data sheet has been compiled according to directive 91/155/CE.

16. Other information

The data presented herein is based on current knowledge.

Users of the product must conform to applicable laws and regulations and should satisfy themselves as to the completeness of the information presented for their specific requirements. This version substitutes all previous versions.
