

CHROME OXIDE GREEN — Cr₂O₃ · PIGMENT GREEN 17

NOT CLASSIFIED
GHS / CLP (EC) 1272/2008

LD50 > 5000
MG/KG · ORAL RAT

2435 °C
MELTING POINT

NOT DANGEROUS GOODS
IMDG · IATA · ADR

1. IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Name: CHROME OXIDE GREEN

Synonyms: Cr₂O₃; chromium oxide greens; chromium(III) oxide; chromia; chromium(3+) oxide; chromic oxide; chromium green oxide; C.I. 77288; dichromium trioxide; Green Cinnabar; Ultramarine green; Green rouge; casalis green; chromium sesquioxide; leaf green; oil green; green chromic oxide; Opaque Oxide of Chromium; Oxide of Chromium

CAS Number: 1308-38-9 · EC number: 215-160-9 · REACH registration: registered substance

1.2 RELEVANT IDENTIFIED USES AND USES ADVISED AGAINST

Industrial uses: pigment for coatings, plastics, construction and ceramics; refractory grit; aluminothermic feedstock; polishing abrasive. Uses advised against: none reported.

1.3 SUPPLIER IDENTIFICATION

Manufacturer: Xi'an Delike Chemical Co., Ltd. · Room 8-2608, Mingyue Hongcheng, No. 8 Liyuan Road, Weiyang District, Xi'an, Shaanxi, China

Emergency tel: +86 (0)29 8579 5526 · SDS author: sds@delikechem.com

BASIS: REACH ANNEX II (1907/2006, AS AMENDED 2020/878) §1

2. HAZARDS IDENTIFICATION

2.1 CLASSIFICATION

Per Regulation (EC) No 1272/2008 (CLP): Physical hazards **Not Classified** · Health hazards **Not Classified** · Environmental hazards **Not Classified**. Hazard statements: **NC**. The product contains no substances classified as PBT or vPvB.

2.2 GHS LABEL ELEMENTS



Official GHS pictogram (per UN GHS Rev. 8, Annex 1 & CLP Annex V): none applies to this product — it is not classified for any physical, health or environmental hazard. The red-framed diamond above is shown empty as the official GHS presentation for a non-classified substance. Signal word: none · Hazard statements: none · Precautionary statements: none.

For reference, the nine official GHS hazard pictograms (GHS01 explosive · GHS02 flame · GHS03 oxidising · GHS04 gas cylinder · GHS05 corrosion · GHS06 skull · GHS07 exclamation mark · GHS08 health hazard · GHS09 environment) do NOT apply to this product.

2.3 OTHER HAZARDS

OSHA Hazard Communication Standard (29 CFR 1910.1200): hazardous as particulate nuisance dust (not otherwise classified). No other hazards known.

BASIS: CLP 1272/2008 ART. 9, ANNEX I & V · UN GHS REV. 8 ANNEX 1 · 29 CFR 1910.1200

3. COMPOSITION / INGREDIENTS

COMPONENT	CAS NO.	CONTENT	CLASSIFICATION
Chromium(III) oxide · EC 215-160-9 · C.I. Pigment Green 17 (77288)	1308-38-9	> 98 %	Not classified (CLP)
Hexavalent chromium compounds (trace)	—	Standard ≤ 10 ppm · Micronized ND	Below threshold · not an SVHC as supplied

BASIS: REACH ANNEX II §3 · ECHA C&L INVENTORY (1308-38-9)

4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

- INHALATION** Remove to fresh air. Get medical attention if cough or other symptoms develop.
- INGESTION** Contact physician if a larger quantity has been consumed.
- SKIN CONTACT** Wash thoroughly with soap and water. Seek medical attention if irritation persists.
- EYE CONTACT** Rinse immediately with plenty of water; remove contact lenses, hold eyelids open; rinse ≥ 15 min. Seek medical attention if irritation persists.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS

Inhalation: frequent dust inhalation over long periods increases lung-disease risk. Ingestion: unlikely (physical nature). Skin: prolonged contact may cause redness, irritation, dry skin. Eyes: temporary irritation.

4.3 INDICATION FOR IMMEDIATE MEDICAL ATTENTION

No specific antidote — treat symptomatically.

BASIS: REACH ANNEX II §4 · GHS GUIDANCE

5. FIRE-FIGHTING MEASURES

Extinguishing media: media suitable for the surrounding fire — the product itself is not combustible. **Fire conditions may produce small amounts of hexavalent chromium.** Firefighters: self-contained breathing apparatus.

BASIS: REACH ANNEX II §5

6. ACCIDENTAL RELEASE MEASURES

Avoid dust generation and spreading; collect mechanically (vacuum, shovel) into closed containers. Avoid discharge into drains, sewers, watercourses or onto the ground. Personal protection per Section 8.

BASIS: REACH ANNEX II §6

7. HANDLING & STORAGE

Do not eat, drink or smoke while handling; wash hands and contaminated areas before leaving the workplace. **Removing polyethylene pallet wrap can generate an electrostatic spark — do not unwrap near flammable vapours.** Store dry in closed containers. Product shelf life 10 years; packaging 5 yrs (25 kg) / 3 yrs (1 t).

BASIS: REACH ANNEX II §7 · EN 60079 (ELECTROSTATICS)

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

SUBSTANCE	LIMIT	TYPE	SOURCE
Chromium(III) oxide	0.5 mg/m³	8-hour TWA	ACGIH TLV (2005)

DNEL / PNEC: not derived for this inorganic pigment (ECHA registered substance); generic dust OELs apply.

8.2 EXPOSURE CONTROLS

Engineering: adequate ventilation, avoid dust inhalation. Eyes: chemical splash goggles. Hands: chemical-resistant impervious gloves. Body: eyewash station and safety shower. Respiratory: program per OSHA 29 CFR 1910.134 / ANSI Z88.2 where warranted.

BASIS: REACH ANNEX II §8 · ACGIH TLV/BEI · 29 CFR 1910.134 · EN 166 / EN 374

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance / form	Dusty crystalline powder	Colour / odour	Green · odourless
pH (10 % slurry)	5 – 9	Melting point	2435 °C
Decomposition temperature	2266 °C	Boiling point	Not applicable (sublimes at very high T)
Relative density	5.1	Bulk density	600 – 1500 kg/m³
Water solubility	Insoluble	Flash point / flammability	Not applicable · not flammable
Mohs hardness	8.5 – 9	Refractive index	2.551
Oil absorption	≤ 25 g/100 g	VOC	None

BASIS: REACH ANNEX II §9 · ISO 787-5/-7/-9 · ISO 4621 · OECD TG 102 (MELTING POINT)

10. STABILITY & REACTIVITY

Stable at normal ambient conditions; no polymerisation; no decomposition used as specified.

MATERIAL / CONDITION	BEHAVIOUR
Molten alkali, high temperature, oxidising conditions	Reacts — forms chromites
Chlorine trifluoride (ClF ₃)	Produces flame
Glycerol	Contact may produce an explosion
Lithium, nitroalkanes, dirubidium acetylide, oxygen difluoride, strong oxidizers	May react
Dry powder at elevated temperature	< 0.1 % (as Cr) reversion to hexavalent chromium possible

BASIS: REACH ANNEX II §10

11. TOXICOLOGICAL INFORMATION

ENDPOINT	RESULT	SOURCE
Acute toxicity — oral	LD50 > 5000 mg/kg (rat)	Literature survey
Acute toxicity — inhalation	LC50 5.41 mg/l (dust)	Literature survey
Dermal	Non-irritant (rabbit, 24 h)	Literature survey
Chronic oral	No treatment-related effects	5 % diet, 2 yrs, rat — Ivankovic & Preussmann, Food Cosmet. Toxicol. 13 (1975) 347–351
Carcinogenicity	IARC not listed · NTP not listed · OSHA not regulated	—

Trivalent chromium compound; < 100 ppm hexavalent chromium. Routes of entry: inhalation, ingestion, skin/eye contact.

BASIS: REACH ANNEX II §11 · OECD TG 401/402/403 · GHS A3.1

12. ECOLOGICAL INFORMATION

Fish acute (Zebra barb, 96 h)	LC0 > 10000 mg/l
Bacterial toxicity	Harmless: E. coli 1000 mg/l · P. fluorescens > 10000 mg/l
Water hazard class	Not hazardous to water (pigment slurry)
Persistence / degradability	Inorganic — not biodegradable (not required to be)
Bioaccumulation / soil mobility	Unlikely · immobile (water-insoluble)
PBT / vPvB assessment	No PBT / vPvB constituents
BOD / COD	Slight

BASIS: REACH ANNEX II §12 · OECD TG 203 · REGULATION (EC) 1907/2006 ANNEX XIII (PBT)

13. DISPOSAL CONSIDERATIONS

Reuse or recycle wherever possible; dispose at licensed sites per local regulations. As shipped, the product does not exceed the RCRA extraction limit of 5 ppm total soluble chromium — not an RCRA hazardous waste when discarded as sold (user must verify at time of disposal, 40 CFR 261.20–24). **Incineration is not recommended — some Cr(III) may convert to Cr(VI).**

BASIS: REACH ANNEX II §13 · 40 CFR 261 · EU 2008/98/EC (WASTE FRAMEWORK)

14. TRANSPORT INFORMATION

Not covered by international dangerous-goods regulations (IMDG, IATA, DOT, ADR/RID).

UN number	Not applicable	Proper shipping name	Not applicable
Hazard class	Not applicable	Packing group	Not applicable
Environmental hazards	No	Special precautions	Not applicable

Bulk transport per MARPOL 73/78 Annex II & IBC Code: not applicable.

BASIS: UN MODEL REGULATIONS · IMDG CODE · IATA DGR · ADR/RID

15. REGULATORY INFORMATION

EU: REACH registered · CLP not classified · RoHS (2011/65/EU) compliant · not on Annex XIV/XVII restriction list as supplied.

US Federal: SARA 313 listed (0.10 % threshold) · SARA 302 / CERCLA / EPCRA RQ: not listed · CAA: not listed.

US State: **California Proposition 65 warning applies** (trace impurities, not intentionally added) · MA & NJ Right-To-Know: listed · RI / MN / PA: not listed.

China: GB 18666 compliant · IECSC listed · GB/T 16483 / GB/T 17519 SDS format basis.

Other inventories (listed or exempt): Canada DSL · Australia AICS · Japan MITI (CSCL) · Korea KECI · Philippines PICCS · New Zealand NZIOC · TSCA.

BASIS: REACH §15 · 40 CFR 355/370/372 · PROP 65 · GB/T 16483-2008

16. OTHER INFORMATION

This SDS is compiled from the manufacturer's current knowledge and does not constitute a guarantee of specific product features or a legally valid contractual relationship. Users must verify suitability for their applications.

STANDARDS AND REFERENCES USED IN COMPILING THIS SDS

Regulation (EC) 1907/2006 (REACH), Annex II as amended by 2020/878	SDS structure, sections 1–16
Regulation (EC) 1272/2008 (CLP) + ATPs	Classification, labelling, pictograms (Annex V)
UN GHS 8th revised edition (Annex 1 — pictograms)	Harmonised hazard communication
ISO 11014:2009	SDS content and format guidance
GB/T 16483-2008 / GB/T 17519-2013	Chinese SDS format & guidelines
29 CFR 1910.1200 (HazCom) / 1910.134	US hazard communication & respiratory protection
ACGIH TLV® and BEI®	Occupational exposure limits
ISO 787 / ISO 4621 / OECD TG	Test methods cited in Sections 9–12
UN Model Regulations / IMDG / IATA DGR / ADR	Transport classification

ABBREVIATIONS

ACGIH · ADR · ANSI · ATP · CAS · CLP · DNEL · ECHA · EINECS · GHS · IARC · IATA · IMDG · LC50 · LD50 · NTP · OECD · OSHA · PBT · PNEC · RCRA · REACH · SARA · SVHC · TLV · TWA · vPvB · VOC

REVISION HISTORY

Rev 2026-01: initial issue · Rev 2026-03: full 16-section rebuild from manufacturer MSDS · Rev 2026-04: standard citations added, Section 9/15/16 expanded · Rev 2026-05: official GHS pictogram panel added (Section 2.2).