

SAFETY DATA SHEET

Chromium (III) Oxide

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME Chromium (III) Oxide
 PRODUCT NO. COP
 SYNONYMS, TRADE NAMES Accrox E, Accrox R, Accrox S, G-4099, G-5099, G-6099, G6099HP, G002, M100, G-8599
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2 HAZARDS IDENTIFICATION

Not regarded as a health or environmental hazard under current legislation.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
CHROMIUM (III) OXIDE	215-160-9	1308-38-9	99.5%	-

The Full Text for all R-Phrases are Displayed in Section 16

EC (EINECS) NO. 215-160-9

COMPOSITION COMMENTS

CI No. 77288

4 FIRST-AID MEASURES

GENERAL INFORMATION

Contaminated clothing should be removed and washed before being re-used.

INHALATION

Remove victim immediately from source of exposure. Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

INGESTION

Rinse mouth thoroughly with water. Victims who are not unconscious should drink large quantities of milk or water, or self induce vomiting (e.g. by sticking own finger into the throat). NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Get medical attention.

SKIN CONTACT

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

The product is non-combustible. Use fire-extinguishing media appropriate for surrounding materials.

SPECIAL FIRE FIGHTING PROCEDURES

No specific fire fighting procedure given.

Chromium (III) Oxide

PROTECTIVE MEASURES IN FIRE

Wear self-contained breathing apparatus if this product is involved in a fire.

6 ACCIDENTAL RELEASE MEASURES

ENVIRONMENTAL PRECAUTIONS

Avoid washing into water courses. Avoid contaminating public drains or water supply.

SPILL CLEAN UP METHODS

Wear necessary protective equipment. Absorb in vermiculite, dry sand or earth and place into containers. Should be prevented from entering drains. Do not contaminate water sources or sewer. An environmental concern is the discolouration of land and water. If the product has entered a water course or sewer, advise the local Environmental Agency or Water Authority. The product will eventually settle and become an inert part of the silt. Do not hose away any spillage.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Avoid handling which leads to dust formation.

STORAGE PRECAUTIONS

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep separate from food, feedstuffs, fertilisers and other sensitive material. Keep in original container.

STORAGE CLASS

Chemical storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	LT - ppm	LT - mg/m3	ST - ppm	ST - mg/m3
CHROMIUM (III) OXIDE	WEL	-	0.5 mg/m3	-	-

INGREDIENT COMMENTS

WEL = Workplace Exposure Limits

UK Guidance Note EH40 - Workplace Exposure Limits.

PROTECTIVE EQUIPMENT



PROCESS CONDITIONS

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station.

ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Workplace Exposure Limit.

HAND PROTECTION

Use suitable protective gloves if risk of skin contact.

EYE PROTECTION

Wear approved chemical safety goggles where eye exposure is reasonably probable.

OTHER PROTECTION

Wear appropriate clothing to prevent repeated or prolonged skin contact.

HYGIENE MEASURES

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. Change work clothing daily before leaving work place.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Powder, dust
COLOUR	Green
ODOUR	Odourless

Chromium (III) Oxide

SOLUBILITY	Insoluble in water		
BOILING POINT (°C)	4000	MELTING POINT (°C)	2266
RELATIVE DENSITY	5.1 @ 20 °c		

10 STABILITY AND REACTIVITY

STABILITY

No particular stability concerns.

CONDITIONS TO AVOID

Dry Chromium (III) oxide powder can react with molten alkali at very high temperatures under oxidising conditions. May react with chlorine trifluoride, lithium, nitroalkanes, dirubidiumacetylide, oxygen difluoride and other strong oxidisers.

HAZARDOUS POLYMERISATION

Not relevant.

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

TOXICOLOGICAL INFORMATION

May cause mechanical skin and eye irritation. Repeated and prolonged exposures to trivalent chromium compounds may cause delayed effects involving the respiratory system.

From literature surveys undertaken for Chromium (III) oxide in powder form:-

LD50 (oral, rat): >5000 mg/kg

Rabbit eyes: non-irritant

Rabbit skin (24 h): non-irritant

GENERAL INFORMATION

No specific health warnings noted.

INHALATION

No specific health warnings noted.

INGESTION

No specific health warnings noted.

SKIN CONTACT

Prolonged contact may cause irritation.

EYE CONTACT

May cause irritation.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Avoid washing into water courses. Avoid contaminating public drains or water supply. 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.

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Recover and reclaim or recycle, if practical. Contact specialist disposal companies. Dispose of waste and residues in accordance with local authority requirements.

14 TRANSPORT INFORMATION

GENERAL

Not classified as dangerous for transport purposes.

Although this product is not classified as dangerous for transport, it is recommended that it should not be carried in the same vehicle as foodstuffs.

No transport warning sign required.

ROAD TRANSPORT NOTES

Not classified as dangerous for road transport.

RAIL TRANSPORT NOTES

Not classified as dangerous for rail transport.

Chromium (III) Oxide

SEA TRANSPORT NOTES Not classified as dangerous for sea transport.

AIR TRANSPORT NOTES Not classified as dangerous for air transport.

15 REGULATORY INFORMATION

RISK PHRASES

NC Not classified.

SAFETY PHRASES

NC Not classified.

UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations 1996.

EU DIRECTIVES

Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC.

GUIDANCE NOTES

UK HSE guidance note EH40, Workplace Exposure Limits.

16 OTHER INFORMATION

GENERAL INFORMATION

See technical literature for details of suitable applications of this product.

INFORMATION SOURCES

1. Aktuelle Anorganische Buntpigmente von Hartmut Endriss, Vincentz Verlag 1997
2. Safe Handling of Pigments, European Edition ETAD/BCMA/VdMI/EPSOM 1995

REVISION COMMENTS

Directive 2001/58/EC

REV. NO./REPL. SDS GENERATED 4/09-2007

SDS NO. COP

DATE 21st September 2007

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