chromium trioxide@Chromium(VI) oxide@Chromic trioxide@ chromic anhydride@Chromic(VI) acid

IDENTIFICATION NUMBERS

- **CAS:** 1333-82-0
- **EC/EINECS:** 215-607-8
- **International Chemical Safety Card (ICSC):** 1194

MORE INFORMATION

- **Molecular Formula:** CrO3
- **Synonyms:** oxido de cromo (VI), trioxido cromico, anhidrido cromico, acido cromico (VI)

USES

preservative

⚠ **Black list — Substances particularly hazardous to the environment or health**

CLASSIFICATION AND LABELLING (Regulation 1272/2008)

Symbols



GHS03

Oxidising gases



GHS05

Corrosive to metals



GHS06

Acute toxicity (oral, dermal, inhalation)



GHS08

Respiratory sensitisation



GHS09

Hazardous to the aquatic environment

Signal word: Danger

H Phrases

H271 : May cause fire or explosion; strong oxidizer

Ox. Sol. (Cat. 1) : Oxidising solid

H350 : May cause cancer

Carc. (Cat. 1A) : Carcinogenicity

H340 : May cause genetic defects

Muta. (Cat. 1B) : Germ cell mutagenicity

H372 : Causes damage to organs through prolonged or repeated exposure

STOT RE (Cat. 1) : Specific target organ toxicity - repeated exposure

H361f : Suspected of damaging fertility.

Repr. (Cat. 2) : Reproductive toxicity

H330 : Fatal if inhaled

Acute Tox. (Cat. 2 *) : Acute toxicity

H311 : Toxic in contact with skin

Acute Tox. (Cat. 3 *) : Acute toxicity

H301 : Toxic if swallowed

Acute Tox. (Cat. 3 *) : Acute toxicity

H314 : Causes severe skin burns and eye damage

Skin Corr. (Cat. 1A) : Skin corrosion/irritation

H334 : May cause allergy or asthma symptoms or breathing difficulties if inhaled

Resp. Sens. (Cat. 1) : Respiratory/skin sensitization

H317 : May cause an allergic skin reaction

Skin Sens. (Cat. 1) : Respiratory/skin sensitization

H400 : Very toxic to aquatic life

Aquatic Acute (Cat. 1) : Hazardous to the aquatic environment

H410 : Very toxic to aquatic life with long lasting effects

Aquatic Chronic (Cat. 1) : Hazardous to the aquatic environment

Labelling

Concentration	Labelling
C >= 10%	C; R35
5 % <= C < 10 %	C; R34
1 % <= C < 5 %	Xi; R36/37/38

Concentration	Labelling
C >= 1 %	STOT única, 3; H335

Specific health risks

According to IARC

Substances classified as carcinogens or mutagens Category 2 under the CLP Regulation (GHS), bearing H351 and/or H341 phrases. These are substances suspected of causing cancer or heritable genetic mutations in humans.

IARC GROUP

Grupo 1

IARC VOLUME

(VOL. 49; 1990)

Occupational Exposure Limits (OEL)

Daily exposure limit values (VLA-ED) published by the Spanish National Institute of Safety and Health at Work (INSST). They represent the average concentration of a chemical agent in the worker's breathing zone, measured or calculated in a time-weighted manner for an 8-hour daily working period. (https://www.insst.es/valores-limites-de-exposicion)

Carcinogens and mutagens (Regulation 1272/2008)

Substances classified as carcinogenic or mutagenic under Regulation 1272/2008

Reproductive toxicants

Substances classified as toxic for reproduction under Regulation 1272/2008

Sensitisers

Substances with skin or respiratory sensitisation potential

Specific environmental risks

Persistent bioaccumulative and toxic

Substances identified as Persistent, Bioaccumulative and Toxic (PBT) according to the criteria of Annex XIII of the REACH Regulation. They pose a special risk of accumulation in the environment and in the food chain.

SOURCES

REACH

LINK

http://apps.echa.europa.eu/registered/data/dossiers/DISS-9c7ac228-b090-229d-e044-00144f67d249/DISS-9c7ac228-b090-229d-e044-00144f67d249_DISS-9c7ac228-b090-229d-e044-00144f67d249.html

Environmental regulations

LPCIC (EPER)

Priority substances and specific pollutants within the EU water policy framework, established by the Water Framework Directive (2000/60/EC) and the Priority Substances Directive (2008/105/EC and amendments). Substances posing significant risk to European surface waters and subject to Environmental Quality Standards (EQS).

EPER WATER	EPER AIR
1	1

EPER SOIL

EPER Water

Substances from List 1 of Annex III of the IPPC Directive (integrated into the Industrial Emissions Directive 2010/75/EU). Atmospheric pollutants —including SO_2, NOx, heavy metals and organic compounds— that must be taken into account when setting emission limit values for IPPC installations.

EPER Air

Substances from List 2 of Annex III of the IPPC Directive (integrated into the Industrial Emissions Directive 2010/75/EU). Pollutants that may affect surface and groundwater bodies and must be considered in the integrated environmental authorisation of industrial installations.

Restriction/prohibition regulations

Restricted substances under REACH

Substances listed in Annex XVII of the REACH Regulation (EC) No 1907/2006, subject to restrictions on their manufacture, placing on the market or use. Restrictions may be total or partial, limiting specific applications, maximum concentrations or user groups.

NOTES

Limitations: Without prejudice to the other parts of this Annex the following shall apply to entries 28 to 30: 1. Shall not be placed on the market, or used, - as substances, - as constituents of other substances, or, - in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than: - either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) No 1272/2008, or, - the relevant concentration specified in Directive 1999/45/EC where no specific concentration limit is set out in Part 3 of Annex VI to Regulation (EC) No 1272/2008. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures is marked visibly, legibly and indelibly as follows: ‘Restricted to professional users’. 2. By way of derogation, paragraph 1 shall not apply to: (a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/ EC; (b) cosmetic products as defined by Directive 76/ 768/EEC; (c) the following fuels and oil products: - motor fuels which are covered by Directive 98/70/EC, - mineral oil products intended for use as fuel in mobile or fixed combustion plants, - fuels sold in closed systems (e.g. liquid gas bottles); (d) artists’ paints covered by Directive 1999/45/ EC; (e) the substances listed in Appendix 11, column 1, for the applications or uses listed in Appendix 11, column 2. Where a date is specified in column 2 of Appendix 11, the derogation shall apply until the said date. Source: Regulation 1907/2006 (REACH). Annex XVII

Substances subject to REACH authorization

Substances listed in Annex XIV of the REACH Regulation, subject to the prior authorisation scheme. To use them after the sunset date, companies must obtain authorisation from ECHA, demonstrating adequate risk control or the absence of viable alternatives.

REACH Candidates

Substances of Very High Concern (SVHC) identified by ECHA and included on the REACH Candidate List. These are substances with CMR, PBT, vPvB or endocrine disrupting properties liable to be included in Annex XIV (authorisation). Their inclusion generates notification obligations for articles containing them.

Major accident hazards (Seveso)

Hazardous substances listed in Annex I of the Seveso III Directive (Directive 2012/18/EU), transposed in Spain by Royal Decree 840/2015. Their presence in industrial establishments in quantities equal to or above established thresholds triggers obligations to implement major accident risk control measures.

Banned biocides

Active substances whose approval for biocidal use has been denied or not renewed under Regulation (EU) No 528/2012 on biocidal products. They may not be placed on the market or used as active substances in biocidal products in the European Union.

SOURCE	EXEMPTIONS
Reglamento (CE) 1048/2005	2006/09/01

Substances under PACT evaluation

Substances under active regulatory monitoring through ECHA's PACT (Public Activities Coordination Tool). Allows tracking which regulatory authorities are examining a substance and what potential regulatory actions are being considered (restriction, SVHC identification, harmonised classification, etc.).