



Substance name: Sodium dichromate
EC number: 234-190-3
CAS number: 10588-01-9 (anhydrous)
7789-12-0 (dihydrate)

MEMBER STATE COMMITTEE
SUPPORT DOCUMENT FOR IDENTIFICATION OF
SODIUM DICHROMATE
AS A SUBSTANCE OF VERY HIGH CONCERN

Adopted on 1 October 2008

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Substance Name: Sodium dichromate

EC Number: 234-190-3

CAS number: 10588-01-9 and 7789-12-0

The substance is identified as a CMR according to Article 57(a), (b) and (c) of Regulation (EC) 1907/2006 (REACH).

Summary of the evaluation:

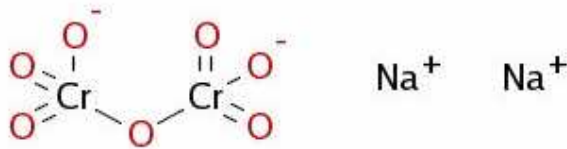
According to Annex I to Directive 67/548/EEC Sodium dichromate is classified as a carcinogen Cat. 2 R45: (May cause cancer), mutagenic Cat. 2 R46. (May cause heritable genetic damage) and as a substance toxic to reproduction Cat. 2 R60 (May impair fertility) and R61: (May cause harm to the unborn child).

JUSTIFICATION

1 IDENTITY OF THE SUBSTANCE AND PHYSICAL AND CHEMICAL PROPERTIES

1.1 Name and other identifiers of the substance

Chemical Name: Sodium Dichromate
 EC Name: 234-190-3
 CAS Numbers: 10588-01-9 (anhydrous) and 7789-12-0 (dihydrate)
 IUPAC Name: disodium oxido-(oxido-dioxo-chromio)oxy-dioxo-chromium hydrate
 Molecular Formula: $\text{Na}_2\text{Cr}_2\text{O}_7 - \text{Na}_2\text{Cr}_2\text{O}_7, 2\text{H}_2\text{O}$
 Structural Formula:



Molecular Weight: 261.96 (anhydrous) - 297.96 (dihydrate)

1.2 Composition of the substance

Typical concentration (% w/w): > 99.3

Concentration range (% w/w): see typical concentration

1.3 Physico-chemical properties

Table1-1: Summary of physico- chemical properties

REACH ref Annex, §	Property	IUCLID section	Value
VII, 7.1	Physical state at 20°C and 101.3 kPa	3.1	Crystals
VII, 7.2	Melting/freezing point	3.2	becomes anhydrous at 100°C and salt melts ~357°C
VII, 7.3	Boiling point	3.3	400°C
VII, 7.5	Vapour pressure	3.6	Not determined
VII, 7.7	Water solubility	3.8	~ 2.355 g/l
VII, 7.8	Partition coefficient n-octanol/water (log value)	3.7	Not available
XI, 7.16	Dissociation constant	3.21	Not available

2 CLASSIFICATION AND LABELLING

2.1 Classification in Annex I of Directive 67/548/EEC

Sodium dichromate is listed in Annex I of Directive 67/548/EEC the following classification:

O;R8

Carc. Cat. 2;R45 (May cause cancer)

Muta. Cat. 2;R46 (May cause heritable genetic damage)

Repr Cat. 2;R60-R61 (May impair fertility ; May cause harm to the unborn child)

T+;R26 (Very toxic by inhalation)

T;R25-48/23 (Toxic if swallowed - Danger of serious damage to health by prolonged exposure through inhalation)

C;R34 (Causes burns)

Xn;R21 (Harmful in contact with skin)

R42/43 (May cause sensitization by inhalation and skin contact)

N;R50-53 (Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment)

Its index numbers are: 024-004-00-7 (sodium dichromate, anhydrate ; CAS: 10588-01-9) and 024-004-01-4 (sodium dichromate, dihydrate ; CAS: 7789-12-0).

2.2 Self classification(s)

No self classification.

REFERENCES

ESIS data for sodium dichromate CAS # 10588-01-9 and 7789-12-0 ; <http://ecb.jrc.it/esis>

Inventaire 2005 des agents CMR, INRS

Fiche Toxicologique, Chromates et dichromates de sodium et de potassium FT180, INRS, 2006.

European Union Risk Assessment Report on Chromium VI compounds, JRC, European Commission, 2005.