

Chromium(VI) oxide pure

Revision date: 14.07.2023

Product code: 25169

Page 1 of 12

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Chromium(VI) oxide pure

1333-82-0
024-001-00-0
215-607-8

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name:	AnalytiChem GmbH	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
E-mail:	info@analytichem.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
E-mail:	produktsicherheit@analytichem.de	
Internet:	www.analytichem.de	
Responsible Department:	Abteilung Produktsicherheit	
1.4. Emergency telephone	For Hazardous Materials [or Danger	ous Goods] Incidents Spill, Leak, Fire,
number:	Exposure, or Accident Call CHEMT	REC Day or Night Within USA and Canada:
	1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls	
	accepted)	

Further Information

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Ox. Sol. 1; H271 Carc. 1A; H350 Muta. 1B; H340 Repr. 2; H361f Acute Tox. 2; H330 Acute Tox. 3; H311 Acute Tox. 3; H301 Skin Corr. 1A; H314 Resp. Sens. 1; H314 Skin Sens. 1; H317 STOT SE 3; H335 STOT RE 1; H372 Aquatic Acute 1; H400 Aquatic Chronic 1; H410



	Chromium(VI) oxide pure	
Revision date: 14.07.2023	Product code: 25169	Page 2 of 12
Full text of hazard sta	atements: see SECTION 16.	
2.2. Label elements		
Regulation (EC) No 1272/	2008	
Signal word:	Danger	
Pictograms:		
lietegramer		
Hazard statements	• • • • •	
H271	May cause fire or explosion; strong oxidiser.	
H330	Fatal if inhaled.	
H301	Toxic if swallowed.	
H311	Toxic in contact with skin.	
H314	Causes severe skin burns and eye damage.	
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
H317	May cause an allergic skin reaction.	
H340	May cause genetic defects.	
H350	May cause cancer.	
H361f	Suspected of damaging fertility.	
H335	May cause respiratory irritation.	
H372	Causes damage to organs through prolonged or repeated exposure.	
H410	Very toxic to aquatic life with long lasting effects.	
Precautionary statemer	nts	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.	
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.	
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P310	Immediately call a POISON CENTER/doctor.	
P371+P380+P375	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the rist of explosion.	sk
Special labelling of cert	-	
,	Restricted to professional users.	

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula:	CrO3
Molecular weight:	99,99 g/mol



according to Regulation (EC) No 1907/2006

Chromium(VI) oxide pure

Revision date: 14.07.2023

Product code: 25169

Page 3 of 12

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
1333-82-0	chromium (VI) trioxide			100 %
	215-607-8	024-001-00-0		
	Ox. Sol. 1, Carc. 1A, Muta. 1B, Repr. 2, Acute Tox. 2, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1A, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 1, Aquatic Acute 1, Aquatic Chronic 1; H271 H350 H340 H361f H330 H311 H301 H314 H334 H317 H335 H372 H400 H410			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. I	imits, M-factors and ATE	
1333-82-0	215-607-8	chromium (VI) trioxide	100 %
		: = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); dermal: LD50 I: LD50 = 52 mg/kg_STOT SE 3; H335: >= 1 - 100	

Further Information

This substance is identifed as SVHC (substance of very high concern) and is subject to autorisation according to Annex XIV of REACH.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Self-protection of the first aider

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.

After contact with skin

Wash immediately with: Water Take off immediately all contaminated clothing and wash it before reuse. Call a physician immediately.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Protect uninjured eye.

After ingestion

Rinse mouth immediately and drink plenty of water. Do not allow a neutralisation agent to be drunk. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Irritant corrosive Cough Dyspnoea Allergic reactions Risk of serious damage to eyes. Gastrointestinal complaints Pneumonia



Chromium(VI) oxide pure

Revision date: 14.07.2023

Product code: 25169

Page 4 of 12

Spasms Circulatory collapse Unconsciousness Methaemoglobin formation

4.3. Indication of any immediate medical attention and special treatment needed No data available

No data avallable

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Non-combustible solids Oxidising properties Hazardous combustion products In case of fire may be liberated: Metal oxide smoke, toxic

5.3. Advice for firefighters

Do not inhale explosion and combustion gases. Avoid contact with skin, eyes and clothes. In case of fire: Wear self-contained breathing apparatus.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Move undamaged containers from immediate hazard area if it can be done safely. Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation. Use personal protection equipment. Avoid contact with skin, eyes and clothes. Remove persons to safety. Emergency procedures Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Collect in closed and suitable containers for disposal. Take up carefully when dry. Take up dust-free and set down dust-free.

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.



according to Regulation (EC) No 1907/2006 Chromium(VI) oxide pure

Revision date: 14.07.2023

Product code: 25169

Page 5 of 12

Other information

Provide adequate ventilation. Do not breathe dust/fume/gas/mist/vapours/spray. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid exposure - obtain special instructions before use. Read label before use. Handle and open container with care. Avoid dust formation. Do not breathe dust. When using do not eat, drink, smoke, sniff. Keep container tightly closed. Use personal protection equipment. Use extractor hood (laboratory). Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Material, oxygen-rich, Oxidising

Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. Make available sufficient washing facilities Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. Take off immediately all contaminated clothing and wash it before reuse. If handled uncovered, arrangements with local exhaust ventilation have to be used.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store in a well-ventilated place. Keep container tightly closed. Store in a place accessible by authorized persons only.

Hints on joint storage

Keep away from: Combustible substance (Material, oxygen-rich, Oxidising)

Further information on storage conditions

Store in a dry place. Keep away from sources of ignition - No smoking. storage temperature < +30°C

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters



according to Regulation (EC) No 1907/2006

Chromium(VI) oxide pure

Revision date: 14.07.2023

Product code: 25169

Page 6 of 12

PNEC values

CAS No	Substance		
Environmenta	l compartment	Value	
1333-82-0	chromium (VI) trioxide		
Freshwater		0,003 mg/l	
Marine water		0,003 mg/l	
Freshwater se	ediment	0,15 mg/kg	
Secondary po	isoning	17000000 mg/kg	
Micro-organis	ms in sewage treatment plants (STP)	0,21 mg/l	
Soil		0,031 mg/kg	

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Avoid dust formation. Do not breathe dust.

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles Wear eye/face protection.

Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact Trade name/designation KCL 741 Dermatril® L Suitable material: NBR (Nitrile rubber) 0,11 mm Wearing time with permanent contact: > 480 min

By short-term hand contact Trade name/designation KCL 741 Dermatril® L Suitable material: NBR (Nitrile rubber) 0,11 mm Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Wear suitable protective clothing.

Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols. Filtering device with filter or ventilator filtering device of type: P3

Environmental exposure controls

Do not allow to enter into surface water or drains.



according to Regulation (EC) No 1907/2006

1907/2006

Chromium(VI) oxide pure

Revision date: 14.07.2023

Product code: 25169

Page 7 of 12

AnalytiChem GmbH

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

9.1. Information on basic physical and o	<u>chemical properties</u>	
Physical state:	solid	
Colour:	dark red	
Odour:	odourless	
Odour threshold:	No data available	
Melting point/freezing point:		197 °C
Boiling point or initial boiling point and	l	No data available
boiling range:		
Flammability:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		No data available
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value (at 20 °C):		<1 (100 g/l)
Viscosity / kinematic:		No data available
Water solubility:		No data available
Solubility in other solvents		
No data available		
Dissolution rate:		No data available
Partition coefficient n-octanol/water:		No data available
Dispersion stability:		No data available
Vapour pressure:		No data available
Vapour pressure:		No data available
Density:		2,7 g/cm³
Relative density:		No data available
Bulk density:		900 kg/m³
Relative vapour density:		No data available
Particle characteristics:		No data available
9.2. Other information		
Information with regard to physical	hazard classes	
Explosive properties		
No data available		
Sustaining combustion:		No data available
Self-ignition temperature		
Solid:		No data available
Gas:		No data available
Oxidizing properties		
Oxidising agent, strong		
Other safety characteristics		
Evaporation rate:		No data available
Solvent separation test:		No data available
Solvent content:		0
Solid content:		100%
Sublimation point:		No data available
Softening point:		No data available
Pour point:		No data available
No data available:		
Viscosity / dynamic:		No data available
Flow time:		No data available



according to Regulation (EC) No 1907/2006

Chromium(VI) oxide pure

Revision date: 14.07.2023

Product code: 25169

Page 8 of 12

CVISION Gale. 14.07.2020

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Oxidising agent, strong

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Combustible substance Alkali metals Ammonia (NH3) Hydrazine NO3 Reducing agent Nitric acid

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

In case of fire may be liberated: SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicocinetics, metabolism and distribution No data available

Acute toxicity Fatal in contact with skin. Fatal if inhaled. Toxic if swallowed.

CAS No Chemical name Exposure route Dose Species Source Method 1333-82-0 chromium (VI) trioxide LD50 oral 52 mg/kg Rat Other company data OECD Guideline 401 (1987) LD50 Rabbit Other company data OFCD Guideline 402 dermal 57 mg/kg (1987) inhalation vapour ATE 0,5 mg/l inhalation dust/mist ATE 0,05 mg/l

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).



Chromium(VI) oxide pure

Revision date: 14.07.2023

Product code: 25169

Page 9 of 12

Sensitising effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (chromium (VI) trioxide) May cause an allergic skin reaction. (chromium (VI) trioxide)

Carcinogenic/mutagenic/toxic effects for reproduction

May cause genetic defects. (chromium (VI) trioxide) May cause cancer. (chromium (VI) trioxide) Suspected of damaging fertility. (chromium (VI) trioxide)

STOT-single exposure

May cause respiratory irritation. (chromium (VI) trioxide)

STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure. (chromium (VI) trioxide)

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

No data available

Specific effects in experiment on an animal

No data available

Additional information on tests

No data available

Practical experience

No data available

11.2. Information on other hazards

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Further information

Irritant corrosive Cough Dyspnoea Allergic reactions Risk of serious damage to eyes. Gastrointestinal complaints Pneumonia Spasms Circulatory collapse Unconsciousness Methaemoglobin formation

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment



Chromium(VI) oxide pure

Revision date: 14.07.2023

Product code: 25169

Page 10 of 12

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

Discharge into the environment must be avoided.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste. Send to a physico-chemical treatment facility under observation of official regulations. Do not allow to enter into surface water or drains.

Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

Lanu transport (ADR/RID)	
14.1. UN number or ID number:	UN 1463
14.2. UN proper shipping name:	CHROMIUM TRIOXIDE, ANHYDROUS
14.3. Transport hazard class(es):	5.1
14.4. Packing group:	II
Hazard label:	5.1+6.1+8
Classification code:	OTC
Special Provisions:	510
Limited quantity:	1 kg
Excepted quantity:	E2
Transport category:	2
Hazard No:	568
Tunnel restriction code:	E
Inland waterways transport (ADN)	
14.1. UN number or ID number:	UN 1463
14.2. UN proper shipping name:	CHROMIUM TRIOXIDE, ANHYDROUS
14.3. Transport hazard class(es):	5.1
14.4. Packing group:	II
Hazard label:	5.1+6.1+8
Classification code:	OTC
Special Provisions:	510
Limited quantity:	1 kg
Excepted quantity:	E2
Marine transport (IMDG)	
14.1. UN number or ID number:	UN 1463
14.2. UN proper shipping name:	CHROMIUM TRIOXIDE, ANHYDROUS
14.3. Transport hazard class(es):	5.1
14.4. Packing group:	II
Hazard label:	5.1+6.1+8
Special Provisions:	-
Limited quantity:	1 kg



according to Regulation (EC) No 1907/2006

Chromium(VI) oxide pure			
Revision date: 14.07.2023	Product co	ode: 25169	Page 11 of 12
Excepted quantity:	E2		
EmS:	F-A, S-Q		
Air transport (ICAO-TI/IATA-DGR)			
14.1. UN number or ID number:	UN 1463		
14.2. UN proper shipping name:	CHROMIUM TRIOX	(IDE, ANHYDROUS	
14.3. Transport hazard class(es):	5.1		
14.4. Packing group:	II		
Hazard label:	5.1+6.1+8		
Limited quantity Passenger:	2.5 kg		
Passenger LQ:	Y544		
Excepted quantity:	E2		
IATA-packing instructions - Passenger:		558	
IATA-max. quantity - Passenger:		5 kg	
IATA-packing instructions - Cargo: IATA-max. quantity - Cargo:		562 25 kg	
		23 Kg	
14.5. Environmental hazards			
ENVIRONMENTALLY HAZARDOUS:	Yes		
Danger releasing substance:	chromium trioxide		
SECTION 15: Regulatory information			
15.1. Safety, health and environmental regul	ations/legislation sp	ecific for the substance or mixture	
EU regulatory information			
Authorisations (REACH, annex XIV): chromium (VI) trioxide			
Restrictions on use (REACH, annex XVII): Entry 28, Entry 75 Information according to 2012/18/EU	H2 ACUTE TOXIC		

(SEVESO III): Additional information: Additional information SVHC substance. National regulatory information

Employment restrictions:

Water hazard class (D):

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 11,12.

P8, E1

child-bearing age.

3 - highly hazardous to water

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of



according to Regulation (EC) No 1907/2006

Chromium(VI) oxide pure

Revision date: 14.07.2023

Product code: 25169

Page 12 of 12

Abbreviations and acronyms

Ox. Sol: Oxidising solid Acute Tox: Acute toxicity Skin Corr: Skin corrosion Eye Dam: Eye damage Resp. Sens: Respiratory sensitisation Skin Sens: Skin sensitisation Muta: Germ cell mutagenicity Carc: Carcinogenicity Repr: Reproductive toxicity STOT SE: Specific target organ toxicity - single exposure STOT RE: Specific target organ toxicity - repeated exposure Aquatic Acute: Acute aquatic hazard Aquatic Chronic: Chronic aquatic hazard

Relevant H and EUH statements (number and full text)

H271	May cause fire or explosion; strong oxidiser.
H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H350	May cause cancer.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.