

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Chromic acid

Revision date: 18.11.2016

Product code: 3G-090

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Chromic acid
CAS No: 1333-82-0
Index No: 024-001-00-0
EC No: 215-607-8

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

Use as laboratory reagent

1.3. Details of the supplier of the safety data sheet

Company name: Waldeck GmbH & Co KG
Division Chroma
Street: Havixbecker Str. 62
Place: D-48161 Münster
Post-office box: 410180
D-48065 Münster
Telephone: +49(0)180/2247662 Telefax: +49(0)180/1247662
Responsible Department: Labor
Mo. – Do.: 08.00 – 17.00 Uhr, Fr.: 08.00 – 15.00 Uhr
+49(0)180/2247662

1.4. Emergency telephone number:**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:
Oxidising solid: Ox. Sol. 1
Carcinogenicity: Carc. 1A
Germ cell mutagenicity: Muta. 1B
Reproductive toxicity: Repr. 2
Acute toxicity: Acute Tox. 2
Acute toxicity: Acute Tox. 3
Acute toxicity: Acute Tox. 3
Specific target organ toxicity - repeated exposure: STOT RE 1
Skin corrosion/irritation: Skin Corr. 1A
Respiratory or skin sensitisation: Resp. Sens. 1
Respiratory or skin sensitisation: Skin Sens. 1
Hazardous to the aquatic environment: Aquatic Acute 1
Hazardous to the aquatic environment: Aquatic Chronic 1
Hazard Statements:
May cause fire or explosion; strong oxidiser.
May cause cancer.
May cause genetic defects.
Suspected of damaging fertility.
Fatal if inhaled.
Toxic in contact with skin.
Toxic if swallowed.
Causes damage to organs through prolonged or repeated exposure.
Causes severe skin burns and eye damage.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.

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Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

chromium trioxide

Signal word:

Danger

Pictograms:**Hazard statements**

H271	May cause fire or explosion; strong oxidiser.
H301	Toxic if swallowed.
H310+H330	Fatal in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
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.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
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.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310	Immediately call a POISON CENTER/doctor.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P306+P360	IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P310	Immediately call a POISON CENTER/doctor.
P352	Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTER/doctor.
P342	If experiencing respiratory symptoms:
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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P371+P380+P375	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

2.3. Other hazards

No information available.



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SECTION 3: Composition/information on ingredients

3.1. Substances

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

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
1333-82-0	chromium 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, STOT RE 1, Skin Corr. 1A, Resp. Sens. 1, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H271 H350 H340 H361f *** H330 H311 H301 H372 ** H314 H334 H317 H400 H410			

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

After inhalation

Provide fresh air. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of 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.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately.

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

Lung irritation, Allergic reactions, Cough, Dyspnoea

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Hazardous combustion products

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.

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Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

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**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid generation of dust. Do not breathe dust.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations.

Advice on storage compatibility

No special measures are necessary.

7.3. Specific end use(s)

Use as laboratory reagent

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
-	Chromium (VI) compounds (as Cr)	-	0.05		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
	Chromium VI	chromium	10 µmol/mol	urine	Post shift

8.2. Exposure controls

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**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

Protective and hygiene measures

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.

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	solid
Colour:	dark red
Odour:	odourless

Test method

pH-Value (at 20 °C):	0,9999999
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Changes in the physical state

Melting point:	(1013 hPa) 197 °C
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Initial boiling point and boiling range:	This information is not available.
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Flash point:	not applicable
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Flammability

Solid:	not determined
Gas:	not applicable

Lower explosion limits:	not applicable
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Upper explosion limits:	not applicable
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Ignition temperature:	not applicable
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Auto-ignition temperature

Solid:	not determined
Gas:	not applicable

Decomposition temperature:	not determined
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Oxidizing properties

Not oxidizing.



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Vapour pressure:	not applicable
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Density (at 20 °C):	2,7 g/cm ³
Bulk density (at 20 °C):	~ 900 kg/m ³
Water solubility: (at 20 °C)	1854 g/L
Solubility in other solvents	
not determined	
Partition coefficient:	not determined
Viscosity / dynamic:	No information available.
Vapour density:	not determined
Evaporation rate:	not determined

9.2. Other information

Solid content:	not determined
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SECTION 10: Stability and reactivity**10.1. Reactivity**

Possibility of hazardous reactions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Base, Peroxide, Oxidising agent.

10.4. Conditions to avoid

none

10.5. Incompatible materials

Keep away from: Base, Oxidising agent, Peroxide.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

CAS No	Chemical name			
	Exposure route	Dose	Species	Source
1333-82-0	chromium trioxide			
	oral	LD50 80 mg/kg	Rat	
	dermal	LD50 ca. 57 mg/kg	Rabbit	IUCLID
	inhalative vapour	ATE 0,5 mg/l		
	inhalative aerosol	ATE 0,05 mg/l		

Additional information on tests

Special hazards arising from the substance or mixture. Classification according to Regulation (EC) No. 1272/2008 [CLP]: dangerous health properties



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SECTION 12: Ecological information**12.1. Toxicity**

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN 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:**

UN 1463

14.2. UN proper shipping name:

CHROMIUM TRIOXIDE, ANHYDROUS

14.3. Transport hazard class(es):

5.1



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14.4. Packing group:

Hazard label:

II

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:**

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

Excepted quantity:

E2

EmS:

F-A, S-Q

Air transport (ICAO-TI/IATA-DGR)**14.1. UN 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



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:

562

IATA-max. quantity - Cargo:

25 kg

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

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Authorisations (REACH, annex XIV):
chromium trioxide

Restrictions on use (REACH, annex XVII):
Entry 28: chromium trioxide

Additional information

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

National regulatory information

Employment restrictions:	Observe restrictions to employment for juvenils 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.
Water contaminating class (D):	3 - highly water contaminating
Skin resorption/Sensitization:	Permeates easily through outer skin and causes poisoning. Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H271	May cause fire or explosion; strong oxidiser.
H301	Toxic if swallowed.
H310+H330	Fatal in contact with skin or if inhaled.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
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



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processing, the information on this safety data sheet is not necessarily valid for the new made-up material.