SIGMA-ALDRICH

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 Version 5.5 Revision Date 31.01.2018 Print Date 20.08.2018 GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

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

1.1	Product identifiers Product name	:	Sodium chromate		
	Product Number Brand Index-No. REACH No. CAS-No.	:	307831 Aldrich 024-018-00-3 A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline. 7775-11-3		
1.2	Relevant identified uses of the substance or mixture and uses advised against				
	Identified uses	:	Scientific research and development		
1.3	3 Details of the supplier of the safety data sheet		safety data sheet		
	Company	:	Sigma-Aldrich Chemie GmbH Riedstrasse 2 D-89555 STEINHEIM		
	Telephone Fax E-mail address	::	+49 89-6513-1444 +49 7329-97-2319 eurtechserv@sial.com		
1.4	Emergency telephone num	mergency telephone number			
	Emergency Phone #		0800 181 7059 (CHEMTREC Deutschland) +49 (0)696 43508409 (CHEMTREC weltweit)		

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 Acute toxicity, Oral (Category 3), H301 Acute toxicity, Inhalation (Category 2), H330 Acute toxicity, Dermal (Category 4), H312 Skin corrosion (Category 1B), H314 Respiratory sensitisation (Category 1), H334 Skin sensitisation (Category 1), H317 Germ cell mutagenicity (Category 1B), H340 Carcinogenicity (Category 1B), H350 Reproductive toxicity (Category 1B), H360FD Specific target organ toxicity - repeated exposure (Category 1), H372 Acute aquatic toxicity (Category 1), H400 Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 Pictogram

	\checkmark \checkmark \checkmark \checkmark
Signal word	Danger
Hazard statement(s)	
H301	Toxic if swallowed.
H312	Harmful 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.
H340	May cause genetic defects.
H350	May cause cancer.
H360FD	May damage fertility. May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
Precautionary statement(s)	
P201	Obtain special instructions before use.
P280	Wear protective gloves/ protective clothing/ eye protection/ face
	protection.
P301 + P330 + P331 + P310	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately
	call a POISON CENTER/ doctor.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for
	breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove
	contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
Supplemental Hazard	none
Statements	

Restricted to professional users. Restricted to professional users.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula	:	CrNa ₂ O ₄
Molecular weight	:	161,97 g/mol
CAS-No.	:	7775-11-3
EC-No.	:	231-889-5
Index-No.	:	024-018-00-3

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration	
Sodium chromate Included in the Candidate List of Substances of Very High Concern (SVHC) according				
	. 1907/2006 (REACH)		, C	
CAS-No.	7775-11-3	Acute Tox. 3; Acute Tox. 2;	<= 100 %	
EC-No.	231-889-5	Acute Tox. 4; Skin Corr. 1B;		
Index-No.	024-018-00-3	Resp. Sens. 1; Skin Sens. 1;		
		Muta. 1B; Carc. 1B; Repr. 1B;		
		STOT RE 1; Aquatic Acute 1;		

Aquatic Chronic 1; H301, H330, H312, H314, H334, H317, H340, H350, H360FD, H372, H400, H410 Concentration limits: >= 0,2 %: Resp. Sens. 1, H334; >= 0,2 %: Skin Sens. 1, H317;	
M-Factor - Aquatic Acute: 10	

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

- 5.2 Special hazards arising from the substance or mixture No data available
- **5.3** Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.
- 5.4 Further information No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

- 6.3 Methods and materials for containment and cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
- 6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

hygroscopic

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: solid Colour: yellow
b)	Odour	No data available
c)	Odour Threshold	No data available
d)	рН	No data available
e)	Melting point/freezing point	Melting point/range: 792
f)	Initial boiling point and boiling range	No data available
g)	Flash point	Not applicable
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	No data available
k)	Vapour pressure	No data available
I)	Vapour density	No data available
m)	Relative density	2,71 - 2,73 g/cm3
n)	Water solubility	No data available
o)	Partition coefficient: n- octanol/water	No data available
p)	Auto-ignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available

SECTION 10: Stability and reactivity

- Reactivity 10.1 No data available
- 10.2 Chemical stability Stable under recommended storage conditions.
- Possibility of hazardous reactions 10.3 No data available
- 10.4 Conditions to avoid No data available
- 10.5 Incompatible materials Strong reducing agents
- 10.6 Hazardous decomposition products Hazardous decomposition products formed under fire conditions. - Sodium oxides, Chromium oxides Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 52 mg/kg

LC50 Inhalation - Rat - 4 h - 100 mg/m3

LD50 Dermal - Rabbit - 1.600 mg/kg

Skin corrosion/irritation No data available

Serious eye damage/eye irritation No data available

Respiratory or skin sensitisation No data available

Germ cell mutagenicity No data available

Carcinogenicity

IARC: 1 - Group 1: Carcinogenic to humans (Sodium chromate)

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure No data available

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard No data available

Additional Information RTECS: GB2955000

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To Page 6 of 8 the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 17,6 mg/l - 96,0 h

Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 0,021 mg/l - 48 h

other aquatic invertebrates

- 12.2 Persistence and degradability No data available
- **12.3 Bioaccumulative potential** No data available

12.4 Mobility in soil No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1	UN numbe ADR/RID: 3	-	IMDG: 3290	IATA: 3290
14.2	 UN proper shipping name ADR/RID: TOXIC SOLID, CORROSIVE, INORGANIC, N.O.S. (Sodium chromate) IMDG: TOXIC SOLID, CORROSIVE, INORGANIC, N.O.S. (Sodium chromate) IATA: Toxic solid, corrosive, inorganic, n.o.s. (Sodium chromate) 			m chromate)
14.3	Transport ADR/RID: 6	hazard class(es) 6.1 (8)	IMDG: 6.1 (8)	IATA: 6.1 (8)
14.4	Packaging ADR/RID: I	• •	IMDG: II	IATA: II
14.5	Environmental hazards ADR/RID: yes		IMDG Marine pollutant: yes	IATA: no
14.6	Special pro No data ava	ecautions for user ailable		

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use	
REACH - Restrictions on the manufacture, placing on	: Sodium chromate
the market and use of certain dangerous substances, preparations and articles (Annex XVII)	

REACH - Candidate List of Substances of Very High : Sodium chromate Concern for Authorisation (Article 59).

This product contains a substance listed on Annex XIV of the REACH Regulation (EC) Nr. 1907/2006. Listed substance / Sunset Date: Sodium chromate / 21.09.2017

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H301	Toxic if swallowed.
H312	Harmful 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.
H340	May cause genetic defects.
H350	May cause cancer.
H360FD	May damage fertility. May damage the unborn child.
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

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigmaaldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.