

# SODA SANAYİİ A.Ş.



<b>SAFETY DATA SHEET</b> According to EU Regulation No (EC) 453/2010	<b>Basic Chromium Sulphate (Chrome Tanning Agent)</b>	<b>Date</b> : 01.11.2010 <b>Rev. Date</b> : 28.05.2012
	<b>Page: 1/10</b>	<b>Revision No</b> : 01

## 1. Identification of Substance, Preparation and Company

### 1.1. Product Identifier

<b>Trade Name</b>	: Tankrom AB
<b>Synonyms</b>	: Basic Chromium Sulphate, Chromium Hydroxide Sulphate
<b>Molecular Formula</b>	: $Cr_x(OH)_y.mNa_2SO_4.H_2O$
<b>Multiconstituent:</b>	Chromium hydroxide sulphate EINECS No: 235-595-8 CAS No: 12336-95-7 Sodium sulphate EINECS No: 231-820-9 CAS No: 7757-82-6

**REACH registration Number** : 01-2119458867-19-0001

### 1.2. Relevant Identified Uses of the Substance and Uses Advised Against (ANNEX 1)

Identified use	Process category (PROC)	Preparation Category (PC)	Sector of Use (SoU)	Article category (AC)	Environmental Release Category (ERC)
ES0 Manufacture of Chromium hydroxide sulphate (inorganic and organic process)	PROC 1 PROC 2 PROC 3 PROC 4 PROC 8b PROC 9	Not relevant	N/A	N/A	ERC 1
ES1 Intermediate in manufacture of other chromium substances	PROC 1 PROC 2 PROC 3 PROC 4 PROC 8b PROC 9	PC 19	SU 3, SU 8,	n/a	ERC 6a
ES2 Formulation of preparations for e. g. leather tanning or surface treatment	PROC 5 PROC 8b PROC 9	PC 14 PC 15 PC 23	SU 3, SU 10	n/a	ERC 2
ES3 Leather tanning	PROC 5 PROC 13 PROC 8b PROC 9	PC 23	SU 3, SU 5	N/A	ERC 4, 5 and 6b
ES4 Surface treatment e.	PROC 13	PC 14	SU 3, SU	n/a	ERC 5

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	<b>Page: 2/10</b>	<b>Revision No</b> : 01

Identified use	Process category (PROC)	Preparation Category (PC)	Sector of Use (SoU)	Article category (AC)	Environmental Release Category (ERC)
g. electroplating and passivation	PROC 8b PROC 9	PC 15	12 SU 15		
ES5 Small scale laboratory use	PROC 15	PC 21	SU 22	n/a	ERC 8b

No uses advised against. **ONLY FOR PROFESSIONAL USAGE!!**

### 1.3. Details of the Supplier of the SDS

**REACH Only Representative** : CROMITAL S.P.A. con socio unico.  
Società soggetta all'attività di direzione e coordinamento di Soda Sanayii A.Ş.  
Strada Quattro, Pal. A7 - 20090 Assago (MI) Italia

**Phone** : + 39 02 576 06 070  
**Fax** : + 39 02 576 09 175  
**E-mail** : reach@cromital.eu  
**Manufacturer** : Soda Sanayii A.Ş. Kromsan Krom Bileşikleri  
Fabrikası P.K. 421 33003 MERSİN/TÜRKİYE  
**Telephone Number** : +90 324 241 6600  
**Fax Number** : +90 324 451 3440

**1.4. Emergency Telephone No** : +90 324 241 6600 (07:00-17:00 CET)  
**E-mail** : [krom@siseecam.com](mailto:krom@siseecam.com)

## 2. Hazards Identification

### 2.1. Classification of the Substance

#### Classification EU (67/548/EC)

No labeling is required

#### Classification EU (1272/2008/EC)

#### Hazard Statement:

H 332 Harmful if inhaled

#### Precautionary Statement:

P261: Avoid breathing dust/fume/gas/mist/vapours/spray

P271: Use only outdoors or in a well-ventilated area

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	<b>Page: 3/10</b>	<b>Revision No</b> : 01

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P312: Call a POISON CENTER or doctor/physician if you feel unwell

## 2.2. Label Elements

### **Labelling:**

Signal Word:

Warning

Pictogram:



Hazard Statement:

H 332 Harmful if inhaled

Precautionary Statement:

P261: Avoid breathing dust/fume/gas/mist/vapours/spray

P271: Use only outdoors or in a well-ventilated area

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P312: Call a POISON CENTER or doctor/physician if you feel unwell

## 2.3. Other Hazards

The substance does not contain any PBT or vPvB.

## 3. Composition / Information on Ingredients

**Typical Analysis** (not to be used as a specification)

The content of Cr <sub>2</sub> O <sub>3</sub> is	25-26 %
Chromium Hydroxide Sulphate	60 %
Sodium Sulphate	25 %
Water	15 %

## 4. First Aid Measures

<b>SAFETY DATA SHEET</b> According to EU Regulation No (EC) 453/2010	<b>Basic Chromium Sulphate (Chrome Tanning Agent)</b>	<b>Date</b> : 01.11.2010 <b>Rev. Date</b> : 28.05.2012
	<b>Page: 4/10</b>	<b>Revision No</b> : 01

**INHALATION:** Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Obtain medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**INGESTION:** No special measures required.

**SKIN CONTACT:** No special measures required.

**EYE CONTACT:** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

## 5. Fire Fighting Measures

In case of fire, use water spray (fog), foam, dry chemical or CO<sub>2</sub>. No specific fire or explosion hazard. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental Release Measures

Take necessary means to prevent formation of dust.

**Personal precautions:** No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Provide adequate ventilation. Put on appropriate personal protective equipment. Hazard of slipping on spilt product.

**Environmental precautions:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Large spill:** Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

**Small spill:** Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

## 7. Handling and Storage

No special measures required. Use original container.

# SODA SANAYİİ A.Ş.



<b>SAFETY DATA SHEET</b> According to EU Regulation No (EC) 453/2010	<b>Basic Chromium Sulphate (Chrome Tanning Agent)</b>	<b>Date</b> : 01.11.2010 <b>Rev. Date</b> : 28.05.2012
	<b>Page: 5/10</b>	<b>Revision No</b> : 01

## 8. Exposure Controls/Personal Protection

### DNEL Values

Endpoint		Quantitative dose descriptor (appropriate unit) or qualitative assessment		Associated relevant effect	Remarks on study
		Local	Systemic		
Acute toxicity	oral	NA: no local effects observed	LD50: 3530 mg/kg bw	Minimal signs of toxicity	Very low toxicity seen in studies
	dermal	NA: no local effects predicted	No data	No toxicity predicted	Test substance is considered to be of low toxicity. No further tests necessary.
	inhalation	LOAEC: 4.58 mg/L	LD50:4.58 mg/L (male/female)	Systemic and local effects were seen at the exposure level	R20 classification
Irritation/Corrosivity	skin	-	NA		Not classified
	eye	-	NA		Not classified
	resp. tract	LOAEL: 4.58 mg/L	NA	Effects seen at this exposure level in the acute inhalation study	Irritant effects at such a high level of exposure may be due to particle overload and are not of relevance to the risk assessment
Sensitisation	skin	-	NA	None	No evidence of sensitisation (study & human experience)
	resp. tract	-	NA	None	No evidence of sensitisation (human experience)
Repeated dose toxicity sub-acute/ sub-chronic/ chronic	oral	-	7 mg/kg bw/d	Low toxicity predicted	Based on read-across from other water-soluble Cr (III) studies
	dermal	-	-	None predicted	No study: very low toxicity predicted due to low dermal absorption
	inhalation	LOAEC: 17 mg/m <sup>3</sup>	LOAEC: 17 mg/m <sup>3</sup>	Reduction in body weight, respiratory tract pathology associated with particle deposition	Minimal effects at the LOAEC may be secondary to particle deposition. LOAEC equivalent to Cr (III) 3 mg/m <sup>3</sup>
Mutagenicity	<i>in vitro</i>	-	-	Mutagenicity / DNA damage	Some evidence of mutagenicity in acellular systems and mammalian cells with Cr (III).
	<i>in vivo</i>	-	Not mutagenic	None	Cr (III) in not considered to be genotoxic <i>in vivo</i> .
Carcinogenicity	oral	-	Not carcinogenic	None	No convincing evidence of carcinogenicity from NTP studies with Cr (III) picolinate.
	dermal	-	-	-	No study: no carcinogenicity predicted either locally or systemically due to low dermal absorption
	inhalation	Not quantifiable	-	None	Carcinogenicity is not predicted from implantation

# SODA SANAYİİ A.Ş.



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	<b>Page: 6/10</b>	<b>Revision No</b> : 01

Endpoint	Quantitative dose descriptor (appropriate unit) or qualitative assessment		Associated relevant effect	Remarks on study	
	Local	Systemic			
				studies or from epidemiological studies.	
Reproductive toxicity fertility impairment	oral	NA	-	No effects predicted due to low toxicity and limited oral absorption	
	dermal	NA	-	No effects predicted due to low dermal absorption	
	inhalation	NA	NOAEC: 168 mg/m <sup>3</sup>	None	No indication of effects on relevant organs seen in a 90-day inhalation study
Reproductive toxicity developmental toxicity	oral	NA	2000 mg/kg bw/d	None	No evidence of developmental toxicity seen in studies with soluble Cr (II) compounds
	dermal	NA	-	-	No effects predicted due to low dermal absorption
	inhalation	NA	-	-	-

## PNEC Values

### PNEC aquatic

# SODA SANAYİİ A.Ş.



<b>SAFETY DATA SHEET</b> According to EU Regulation No (EC) 453/2010	<b>Basic Chromium Sulphate (Chrome Tanning Agent)</b>	<b>Date</b> : 01.11.2010 <b>Rev. Date</b> : 28.05.2012
	<b>Page: 7/10</b>	<b>Revision No</b> : 01

PNEC	Value	Assessment factor	Remarks/Justification
PNEC aqua – freshwater (mg/L)	4.7 µg/L Cr (III)  0.027 mg/L [Cr(OH)SO4]	10	Extract from EU RAR (2005):  In lower hardness waters the acute toxicity increases; there are also indications that NOEC values decrease with decreasing hardness. There are insufficient data to carry out an HC5 calculation for chromium (III). From the freshwater data reported in the EU RAR long-term NOEC values are 0.05 mg/L for fish and 0.047 mg/L for invertebrates, and >2 mg/L for algae (although an EC50 of 0.32 mg/L is reported for another species). The fish and invertebrate values relate to hardness levels of 26 and 52 mg/L respectively. Applying an assessment factor of 10 to the lowest available NOEC gives a tentative PNEC for chromium (III) of 4.7 µg/l for soft water. This is similar to that derived for chromium (VI), but the two values are not directly comparable as they are based on very different data sets. However, this may indicate that in low hardness waters the two forms may not be very different in effect. The NOEC from the same invertebrate study at a hardness of 100 mg/L was 0.129 mg/L, which would give a ‘PNEC’ of 13 µg/l. The data indicate that chromium (III) may have reduced toxicity at greater hardness levels, but as with chromium (VI) the evidence is limited (these comments relate to chronic toxicity). The PNEC is at the lower end of the range of published criteria/standards for the protection of aquatic life. For example, the UK Environmental Quality Standard for total chromium in freshwater ranges from 5 to 50 µg/l (dependent on water hardness) and in saltwater it is 15 µg/l. It should also be noted that the PNEC for chromium (III) refers to the dissolved water concentration. In laboratory tests, water-soluble forms of chromium (III) have generally been used. However, in the environment, chromium (VI) is likely to be reduced to forms of chromium (III) with limited water solubility, which will be associated mainly with the particulate (sediment and suspended matter) phases of the water compartment.  In summary, the PNEC value for the surface water compartment is 4.7 µg/l for chromium (III).  The multi-constituent substance contains 55% Cr(OH)SO4, therefore the equivalent PNEC for the substance (correcting for Cr content) is 0.027 mg/L
PNEC aqua - marine water (mg/L)	4.7 µg/L Cr (III)  0.027 mg/L [Cr(OH)SO4]	10	The comparison between freshwater and saltwater organisms shows that freshwater organisms are more sensitive (EU RAR). Therefore, the PNEC derived for freshwater organisms is considered protective of the marine environment.  The multi-constituent substance contains 55% Cr(OH)SO4, therefore the equivalent PNEC for the substance (correcting for Cr content) is 0.027 mg/L
PNEC aqua – intermittent releases (mg/L)	4.7 µg/L Cr (III)  0.027 mg/L [Cr(OH)SO4]	10	No separate PNEC derived.  The multi-constituent substance contains 55% Cr(OH)SO4, therefore the equivalent PNEC for the substance (correcting for Cr content) is 0.027 mg/L

## PNEC sediment

PNEC	Value	Assessment factor	Remarks/Justification
PNEC sediment ( mg/kg d.w.)	31 [Cr (III)]  180 [Cr(OH)SO4]	-	extrapolation method Equilibrium partitioning method (EU RAR, 2005) based on aquatic PNEC of 4.7 µg/L (neutral/alkaline conditions). Using these values, the PNEC sediment can be estimated as follows: Similarly, for chromium (III), PNEC sediment = 31 mg/kg wet weight for acid conditions and 307 mg/kg wet weight for other conditions. The multi-constituent substance contains 55% Cr(OH)SO4, therefore the equivalent PNEC for the substance (correcting for Cr content) is 180 mg/kg dw

<b>SAFETY DATA SHEET</b> According to EU Regulation No (EC) 453/2010	<b>Basic Chromium Sulphate (Chrome Tanning Agent)</b>	<b>Date</b> : 01.11.2010 <b>Rev. Date</b> : 28.05.2012
	<b>Page: 8/10</b>	<b>Revision No</b> : 01

No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Respiratory protection: Recommended (dust-protection mask)

Skin protection : Hand protection recommended (gloves)

Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Recommended: safety glasses with side-shields

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. Physical and Chemical Properties\*

<b>Appearance/Physical State</b>	: Green Powder.
<b>Odor</b>	: None
<b>pH ( in 10 % solution)</b>	: 3
<b>Chromium oxide content</b>	: 25.5 %
<b>Basicity (Schorlemmer) (%)</b>	: 33
<b>Flammability Point</b>	: N/A
<b>Flammability</b>	: N/A
<b>Auto flammability</b>	: N/A
<b>Explosive Properties</b>	: N/A
<b>Bulk Density</b>	: 0,86 g/l

\*Not to be used as a product specification

## 10. Stability and Reactivity

Stable at normal conditions. Thermal decomposition begins over 1200 °C. No hazardous reaction or decomposition products observed.

## 11. Toxicological Information

Acute toxicity:  
LD<sub>50</sub> 3000 mg/kg body weight.

For rabbit eyes: Non – irritant  
Rabbit skin (24h): Non - irritant

## 12. Ecological Information



<b>SAFETY DATA SHEET</b> According to EU Regulation No (EC) 453/2010	<b>Basic Chromium Sulphate (Chrome Tanning Agent)</b>	<b>Date</b> : 01.11.2010 <b>Rev. Date</b> : 28.05.2012
	<b>Page: 9/10</b>	<b>Revision No</b> : 01

No data is available on the short- or long-term effects of chromium (III) to plants, birds or land animals. If spills on water neutralize with agricultural lime (CaO), crushed limestone (CaCO<sub>3</sub>), or sodium bicarbonate (NaHCO<sub>3</sub>). Adjust pH to neutral (pH-7). If spills on land dig a pit, pond, lagoon or holding area to contain liquid or solid material. If time permits, pits, ponds, lagoons, soak holes, or holding areas should be sealed with an impermeable flexible membrane liner. Dike surface flow using soil, sand bags, foamed polyurethane, or formed concrete. Absorb bulk liquid with fly ash, cement powder, sawdust, or commercial absorbents. Apply "universal" gelling agent to immobilize spill. Cover solids with a plastic sheet to prevent dissolving in rain or fire fighting water.

**13. Disposal Considerations**

May be transported to an approved landfill in closed container provided local regulations are observed. Address manufacturer.

Disposal of emptied containers: Transport to approved incinerator.

**14. Transport Information**

Land transport (ADR/RID/)

UN number: Not classified as a hazardous cargo under current transport regulations

Inland waterway transport (AND(R))

UN number: Not classified as a hazardous cargo under current transport regulations

Marine transport (IMDG)

UN number: Not classified as a hazardous cargo under current transport regulations

Air transport ICAO/IATA

UN number: Not classified as a hazardous cargo under current transport regulations

Not a dangerous cargo. Keep separate from foodstuffs. Keep container tightly closed. Suitable for any general chemical storage area.

25 kg inner layer polyethylene, outer layer polypropylene woven or kraft, bags; palletized, shrink wrapped.

**15. Regulatory Information**

**15.1.** Not known any regulation until now.

**15.2. Chemical Safety Assessment**

A chemical safety assessment is prepared by the manufacturer

<b>SAFETY DATA SHEET</b> According to EU Regulation No (EC) 453/2010	<b>Basic Chromium Sulphate (Chrome Tanning Agent)</b>	<b>Date</b> : 01.11.2010 <b>Rev. Date</b> : 28.05.2012
	<b>Page: 10/10</b>	<b>Revision No</b> : 01

**16. Other Information**

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The date does not signify any warranty with regard to the products properties.

**ANNEX 1:****Identified Uses of Chromium Hydroxide Sulphate**

The majority of chromium hydroxide sulphate is used in the leather tanning industry. Minor markets are in metal treatment (decorative plating or finishing and zinc passivation) and as raw material for other trivalent chromium chemicals.

**a Intermediate in manufacture of other chromium substances**

Basic chromium sulphate is used in metallurgy and as a starting material to produce substances like chromium hydroxide, chromium fluoride, or more complex structures like metal complex dyes.

**b Leather tanning**

Tanning converts raw hides or skins into leather. Tanning is the single biggest consumer of trivalent chromium chemicals. Chromium tanning of leather was introduced in about 1880 and is now the principal tanning process that accounts for 85 to 90 % of all leathers worldwide. Chrome tanned leather tends to be softer and more pliable than vegetable tanned leather, has higher thermal stability, is very stable in water and takes less time to produce.

**c Metal surface treatment e.g. electroplating and passivation**

Metal treatment/finishing using trivalent chromium is mainly used for decorative purposes such as in common domestic products like plumbing, door handles etc. Passivation is also commonly used on zinc-plated parts to make them more durable.

The identified uses are listed in the Section 1.2.