

**Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1. Product identifier**

**Product Name/Catalog ID** SS-11CRO4; SS-12CRO4; SS-15CRO4

**Product Description** 1 000 µg/mL Chromate  
Contains Ammonium bichromate

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

**Recommended Use** Laboratory chemicals

**Uses advised against** No information available

**1.3. Details of the supplier of the safety data sheet****Company**

Teknolab  
Verkstedveien 29  
1400 Ski  
Norway  
Tel: +47 66 81 34 70  
Fax: +47 66 81 34 71  
e-mail: mail@teknolab.no  
Web: www.spectrascan.no

**1.4. Emergency telephone number**

Chemtrec 1-800-424-9300 (North America)  
Chemtrec +1 703-741-5970 (International)

<b>Europe</b>	<b>See above</b>
<b>Norway</b>	Poisons Information (NO): + 47 22 591300

**Section 2: HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture**

REGULATION (EC) No 1272/2008

**Classification according to EU Directives 67/548/EEC or 1999/45/EC****Symbol(s)**

T - Toxic

**R-code(s)**

Carc. cat. 2; R45 - Muta. cat. 2; R46 - Xn; R20

**GHS**

<b>Germ cell mutagenicity</b>	Category 1B - (H340)
<b>Carcinogenicity</b>	Category 1B - (H350)

For the full text of the R phrases mentioned in this Section, see Section 16

**2.2. Label Elements**

**Product identifier**

Contains Ammonium bichromate

**Signal word**

Danger

**Hazard statements**

H340 - May cause genetic defects

H350 - May cause cancer

Contains Ammonium bichromate May produce an allergic reaction

**Precautionary Statements - EU (§28, 1272/2008)**

P201 - Obtain special instructions before use

P281 - Use personal protective equipment as required

P308 + P313 - IF exposed or concerned: Get medical advice/attention

**2.3. Other information**

May cause heritable genetic damage

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

Chemical Name	EC No	CAS No	Weight-%	Classification according to Directive 67/548/EEC or 1999/45/EC	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Reg
Ammonium bichromate	EEC No. Present	7789-09-5	0.11	E; R2 Xn; R21 T; R25-48/23 T+; R26 C; R34 R42/43 Carc.Cat.2; R45 Muta.Cat.2; R46 N; R50-53 Repr.Cat.2; R60-61 O; R8 R43 Carc.Cat.2; R49 N; R50-53	Acute Tox. 3 (H301) Acute Tox. 2 (H330) Acute Tox. 4 (H312) Skin Corr. 1B (H314) Ox. Sol. 2 (H272) Repr. 1B (H360FD) STOT RE 1 (H372) Muta. 1B (H340) Carc. 1B (H350) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data avail

For the full text of the R phrases mentioned in this Section, see Section 16

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**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

**Inhalation**

Immediate medical attention is required. Move to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, give oxygen. If breathing is irregular or stopped, administer artificial respiration.

<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
<b>Eye Contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. If symptoms persist, call a physician.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person.
<b>Protection of First-aiders</b>	Use personal protective equipment. Avoid contact with skin, eyes and clothing.

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

<b>Most Important Symptoms and Effects</b>	Difficulty breathing.
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#### **4.3. Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Treat symptomatically
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### **Section 5: FIRE FIGHTING MEASURES**

#### **5.1. Extinguishing media**

##### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

##### **Unsuitable Extinguishing Media**

No information available

#### **5.2. Special hazards arising from the substance or mixture**

Thermal decomposition can lead to release of irritating gases and vapors

#### **5.3. Advice for firefighters**

As in any fire, wear self-contained breathing apparatus and full protective gear.

### **Section 6: ACCIDENTAL RELEASE MEASURES**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

##### **Personal Precautions**

Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Use personal protective equipment. Do not get in eyes, on skin, or on clothing.

##### **Advice for emergency responders**

Ensure adequate ventilation.

#### **6.2. Environmental precautions**

Prevent further leakage or spillage if safe to do so.

#### **6.3. Methods and materials for containment and cleaning up**

<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
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<b>Methods for Cleaning Up</b>	Take up mechanically and collect in suitable container for disposal.
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#### **6.4. Reference to other sections**

See Section 12: ECOLOGICAL INFORMATION.

## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

#### Technical measures/Precautions

Ensure adequate ventilation.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Technical measures/Precautions

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

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure Limits

Chemical Name	EU		The United Kingdom	France	Spain		Germany
Ammonium bichromate 7789-09-5			TWA: 0.05 mg/m³	TWA: 0.001 mg/m³ STEL: 0.005 mg/m³	TWA: 0.05 mg/m³		Skin
Component	Italy		Portugal	The Netherlands	Finland		Denmark
Ammonium bichromate 7789-09-5 ( 0.11 )			TWA: 0.5 mg/m³ TWA: 0.05 mg/m³	Skin STEL: 0.02 mg/m³ TWA: 0.01 mg/m³ TWA: 0.05 mg/m³	TWA: 0.005 mg/m³		TWA: 0.005 mg/m³
Chemical Name	Sweden		Austria	Switzerland	Poland	Norway	Ireland
Ammonium bichromate 7789-09-5			Skin	Skin TWA: 0.005 mg/m³	STEL: 0.3 mg/m³ TWA: 0.1 mg/m³	TWA: 0.005 mg/m³ STEL: 0.005 mg/m³	TWA: 0.05 mg/m³ TWA: 0.01 mg/m³ STEL: 0.15 mg/m³ STEL: 0.03 ma/m³

**Derived No Effect Level (DNEL)** No information available

**Predicted No Effect Concentration (PNEC)** No information available.

### 8.2. Exposure controls

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

#### Personal protective equipment

##### Eye/Face Protection

Tightly fitting safety goggles.

##### Hand Protection

Impervious gloves.

##### Skin and Body Protection

Impervious clothing. Boots. Chemical resistant apron.

##### Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

**Environmental Exposure Controls** No information available.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

#### Physical state

Liquid

#### Appearance

clear / Orange

#### Odor

Odorless

<u>Property</u>	<u>Values</u>
pH VALUE	No data available
Melting Point/Range	No data available
Boiling Point/Range	100 °C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Vapor Pressure	No data available
Vapor density	No data available
Relative Density	No data available
Specific Gravity	No data available
Water Solubility	Miscible
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
 Explosive Properties	 No information available
Oxidizing Properties	No information available
 <u>Other information</u>	
VOC Content	No information available

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No data available.

### 10.2. Chemical Stability

Stable under normal conditions.

#### Explosion Data

Sensitivity to Mechanical Impact    None.

Sensitivity to Static Discharge        None.

### 10.3. Possibility of Hazardous Reactions

#### **Hazardous Polymerization**

Hazardous polymerization does not occur.

#### **Hazardous Reactions**

None under normal processing.

### 10.4. Conditions to Avoid

None known.

### 10.5. Incompatible materials

No information available

### 10.6. Hazardous Decomposition Products

No information available.

## Section 11: TOXICOLOGY INFORMATION

### 11.1. Information on toxicological effects

#### Acute Toxicity

<b><u>Product Information</u></b>	Harmful by inhalation. Contains a known or suspected carcinogen. May cause cancer.
<b>Inhalation</b>	Harmful by inhalation.
<b>Eye Contact</b>	There is no data available for this product.
<b>Skin Contact</b>	There is no data available for this product.
<b>Ingestion</b>	There is no data available for this product.

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	48,863.64 mg/kg
<b>ATEmix (inhalation-gas)</b>	90,918.18 ppm
<b>ATEmix (inhalation-dust/mist)</b>	141.82 mg/l
<b>ATEmix (inhalation-vapor)</b>	455.46 mg/l
<b><u>Unknown acute toxicity</u></b>	
0 % of the mixture consists of ingredient(s) of unknown toxicity.	

<b>Skin corrosion/irritation</b>	No information available.
<b>Eye damage/irritation</b>	No information available.
<b>Sensitization</b>	No information available.
<b>Mutagenic Effects</b>	Contains a known or suspected mutagen. May cause heritable genetic damage.
<b>Carcinogenic effects</b>	Contains a known or suspected carcinogen.

Chemical Name	EU Annex I Carcinogen Information
Ammonium bichromate	Carc. 1B

**Reproductive Toxicity** May cause heritable genetic damage.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Target Organ Effects** Skin, Eyes, Respiratory system.

**Aspiration hazard** No information available.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

Contains 0 % of components with unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Ammonium bichromate		136: 96 h Gambusia affinis mg/L LC50	

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

No information available.

#### **12.4. Mobility in soil**

##### **Mobility in soil**

No information available.

#### **12.5. Results of PBT and vPvB assessment**

No information available.

#### **12.6. Other adverse effects.**

### **Section 13: DISPOSAL CONSIDERATIONS**

#### **13.1. Waste treatment methods**

##### **Waste from Residues/Unused Products**

Dispose of in accordance with federal, state and local regulations.

##### **Contaminated Packaging**

Do not re-use empty containers.

##### **Other Information**

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

### **Section 14: TRANSPORT INFORMATION**

#### **IMDG**

14.1. UN-No	Not regulated
14.2. Proper shipping name	Not regulated
14.3. Hazard Class	Not regulated
14.4. Packing Group	Not regulated
Description	Not applicable
14.5. Marine Pollutant	None
14.6. Special Provisions	None
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

#### **RID**

14.1. UN-No	Not regulated
14.2. Proper shipping name	Not regulated
14.3. Hazard Class	Not regulated
14.4. Packing Group	Not regulated
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

#### **ADR**

14.1. UN-No	Not regulated
14.2. Proper shipping name	Not regulated
14.3. Hazard Class	Not regulated
14.4. Packing Group	Not regulated
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

#### **ICAO**

14.1. UN-No	Not regulated
14.2. Proper Shipping Name	Not regulated
14.3. Hazard Class	Not regulated
14.4. Packing Group	Not regulated
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

**IATA-DGR**

14.1. UN-No	Not regulated
14.2. Proper shipping name	Not regulated
14.3. Hazard Class	Not regulated
14.4. Packing Group	Not regulated
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

## Section 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

#### International Inventories

**All of the components in the product are on the following inventory lists:** U.S.A. (TSCA), Europe (EINECS/ELINCS/NLP), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), China (IECSC), Australia (AICS), Korea (ECL).

TSCA	Complies
EINECS/ELINCS	Complies
DSL/NDSL	Complies
PICCS	Complies
ENCS	Complies
IECSC	Complies
AICS	Complies
KECL	Complies

#### Legend

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

### 15.2. Chemical Safety Assessment

No information available

## Section 16: OTHER INFORMATION

#### Full text of R-phrases referred to under sections 2 and 3

R34 - Causes burns

R45 - May cause cancer

R49 - May cause cancer by inhalation

R2 - Risk of explosion by shock, friction, fire or other sources of ignition

R46 - May cause heritable genetic damage

R8 - Contact with combustible material may cause fire

R43 - May cause sensitization by skin contact

R61 - May cause harm to the unborn child

R60 - May impair fertility



R26 - Also very toxic by inhalation  
R25 - Also toxic if swallowed  
R21 - Also harmful in contact with skin  
R20 - Also harmful by inhalation  
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment  
R42/43 - May cause sensitization by inhalation and skin contact  
R48/23 - Also toxic: danger of serious damage to health by prolonged exposure through inhalation

**Full text of H-Statements referred to under section 3**

H301 - Toxic if swallowed  
H312 - Harmful in contact with skin  
H314 - Causes severe skin burns and eye damage  
H272 - May intensify fire; oxidizer  
H360FD - May damage fertility. May damage the unborn child  
H372 - Causes damage to organs through prolonged or repeated exposure if inhaled  
H340 - May cause genetic defects if inhaled  
H350 - May cause cancer if swallowed  
H330 - Fatal if inhaled  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H317 - May cause an allergic skin reaction  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects

**Revision Date** 18-Nov-2016

**Reason for Revision** Not applicable.

**This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of Safety Data Sheet**