

# Safety data sheet

According to the Commission Regulation (EU) No. 453/2010

Date of issue: 1. 9. 2013

Revision Date: 31. 5. 2015

## Elsil CT

### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Commercial name: Elsil CT (the colloidal solution of chromium)

Registration number of the mixture components: 01-2119458868-17 (chromium trioxide)

It will be amended in connection with the registration according to the Regulation (EC) No. 1907/2006 of the European Parliament and of the Council. (aluminum tris (dihydrogen phosphate), bindzil)

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

Profession application: as an electroinsulating material - creation of insulating coatings for transformer sheets. For industrial use only.

#### 1.3 Details of the supplier of the safety data sheet

Producer/importer: **Vodní sklo, a. s.**, Krakovská 1346/15, 110 01 Praha 1 – Nové Město

Address: Dornych 47, 656 16 Brno; U Tonasa 172/2, 403 31 Ústí nad Labem  
IČ 279 21 662

Telephone number: +420 530 530 000 (Brno), +420 475 245 362, +420 475 245 233 (Ústí)

Fax number: +420 530 530 002 (Brno), +420 475 507 164 (Ústí)

Competent person responsible for the SDS: Ing. Andrea Kudrová e-mail: andrea.kudrova@vodnisklo.cz

#### 1.4 Emergency telephone number

Toxikologické informační středisko (Poison center), Na Bojišti 1, 120 00 Praha 2;

Telephone number (24 hours/day) +420 224 919 293; +420 224 915 402

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

According to the Regulation (EC) No. 1272/2008: Acute Tox. 4: H332, Skin Irrit. 2: H315, Eye Dam. 1: H318, Resp. Sen. 1: H334, Skin. Sen. 1: H317, Muta 1B: H340, Carc. 1A: H350, H350i, Repr. 2: H361, STOT RE 2: H373, Aquatic Chronic 2: H411

The human health and environmental hazards: The mixture is classified as a toxic and dangerous for the environment. Full text of the H and P phrases is listed in the section 16 of this safety data sheet.

#### 2.2 Label elements

Hazard pictogram(s):



Signal word:

**Danger**

Hazard statement(s):

H315: Causes skin irritation.

H317: May cause an allergic skin reaction

H318: Causes serious eye damage

H332: Harmful 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

H361: Suspected of damaging fertility or the unborn child.

H373: May cause damage to organs through prolonged or repeated exposure

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## **Elsil CT**

H411: Toxic to aquatic life with long lasting effects

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### Precautionary statement(s) (prevention):

P201: Obtain special instructions before use  
 P260: Do not breathe fume, gas and vapours.  
 P271: Use only outdoors or in a well-ventilated area.  
 P272: Contaminated work clothing should not be allowed out of the workplace.  
 P273: Avoid release to the environment  
 P280: Wear protective gloves and protective clothing.  
 P284: Wear respiratory protection.

### Precautionary statement(s) (response):

P310: Immediately call a TOXIKOLOGICKÉ INFORMAČNÍ STŘEDISKO or doctor/physician  
 P314: Get Medical advice if you feel unwell.  
 P361: Take off immediately all contaminated clothing  
 P301+310: IF SWALLOWED: Immediately call a TOXIKOLOGICKÉ INFORMAČNÍ STŘEDISKO or doctor/physician  
 P302+352: IF ON SKIN: Wash with soap and water  
 P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing  
 P307+311: IF exposed: Call a TOXIKOLOGICKÉ INFORMAČNÍ STŘEDISKO or doctor/physician  
 P308+313: IF exposed or concerned: Get medical advice/attention  
 P309+311: IF exposed or you feel unwell: Call a TOXIKOLOGICKÉ INFORMAČNÍ STŘEDISKO or doctor/physician  
 P342+311: If experiencing respiratory symptoms: Call a TOXIKOLOGICKÉ INFORMAČNÍ STŘEDISKO or doctor/physician

### Precautionary statement(s) (storage):

P403+233: Store in a well ventilated place. Keep container tightly closed  
 P501: Dispose of contents/container.

## 2.3 Other hazards



The mixture does not fulfill the criteria for PBT or vPvB substance.  
 No additional hazards had been determined.

## 3. Composition/information on ingredients

### 3.1 Substances

### 3.2 Mixtures

3.2.1 For mixtures classified according to the Regulation (EC) No. 1272/2008

Chemical name:	Chromium trioxide	Aluminum tris (dihydrogen phosphate)
Concentration in (%):	2,5 - 3%	< 35%
Hazard pictogram(s):		
Signal word(s):	<b>Danger</b>	<b>Danger</b>
Code of hazard class and hazard category:	Ox. Sol. 1 Carc. 1A	Eye Dam. 1

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	<p>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 STOT SE 3 Aquatic Acute 1 Aquatic Chronic 1</p>	
Hazard statement(s):	<p>H271 H350 H340 H361 H330 H311 H301 H372 H314 H334 H317 H335 H400 H410</p>	H318
Precautionary statement(s) according to the CLP regulation:	<p>P201 P202 P210 P260 P264 P273 P280 P281 P301+310 P302+352 P304+340 P305+P351+P338 P308+P313 P330 P403+P233 P405 P501</p>	<p>P262 P280 P303+P361+P353 P305+P351+P338 P310</p>
CAS number:	1333-82-0	13530-50-2
EC (EINECS) number:	215-607-8	236-875-2

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Index number:	024-001-00-0	it is not available
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Note: The product contains chromium trioxide at a concentration  $\geq 0.1\%$ , which is on the SVHC list according to Articles 57 and 59 of the the Regulation (EC) No. 1907/2006 of the European Parliament and of the Council.

Full text of the H and P phrases is listed in the section 16 of this safety data sheet.

## 4. First aid measures

### 4.1 Description of first aid measures

First aid personnel must take care their own safety. In case of accident or if you feel unwell, or in case of the occurrence of any symptoms or doubts, consult your health condition with a doctor and provide information from this safety data sheet. Ensure the functioning of the vital functions (artificial respiration, inhalation of oxygen, heart massage). In case of unconsciousness place the affected person into the stabilized position on the side and do not administer any oral products.

Following aspiration/inhalation:

Move affected person to fresh air, keep the person quiet and warm, in case of respiratory failure administer artificial respiration, seek out immediately medical attention.

Following skin contact:

Immediately remove contaminated clothing and shoes and wash affected areas with plenty of soap and water. Seek out immediately medical attention.

Following eye contact:

Remove contact lenses, if present and easy to do. Rinse eyes with pure fresh running water stream for at least 15 minutes while holding eyelids apart and seek out immediately medical attention. Continue rinsing during the affected person transport.

After ingestion:

Rinse mouth with water, drink plenty of water. Do not induce vomiting! Seek out immediately medical attention.

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

Electroinsulating coating is toxic via the oral, dermal and inhalation route. May cause sensitisation by inhalation and skin contact. May cause cancer and heritable genetic damage. Danger of serious damage to health by prolonged exposure through inhalation, risk of serious damage to eyes, stomach and intestinal problems.

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

Seek out immediately medical attention.

## 5. Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media: Water spray, alcohol resistant foam, CO<sub>2</sub>. The product is not combustible. The type of extinguishing agent to adapt the surrounding area.

Unsuitable extinguishing media: Not applicable.

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

Avoid inhalation of combustion products (toxic fumes).

### 5.3 Advice for firefighters

Firefighters equip with insulating breathing apparatus, adequate to environmental conditions, independent of the surrounding atmosphere and protective chemical clothing. Fire residues and contaminated water shall be disposed as a hazardous waste. Do not discharge contaminated water into drains.

## 6. Accidental release measures

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

6.1.1 For non-emergency personnel

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Avoid direct contact with the leaking mixture. Avoid contact with eyes and skin and gas/fumes/vapour/spray formation, do not breathe gas/fumes/vapour/spray. Ensure adequate ventilation. Follow the instruction in section 8. Wear protective clothing, protective gloves, eyes/face protection, respirator or breathing apparatus, a container with pure water for washing out eyes should be placed in the workplace.

### 6.1.2 For emergency responders

See section 6.1.1. Wear special protective equipment (breathing technique, chemical clothing, ...).

## 6.2 Environmental precautions

Prevent a penetration into soil, drainage, surface waters or groundwater.

## 6.3 Methods and material for containment and cleaning up

### 6.3.1 Advices how to contain a spilled substance or mixture

Prevent a leakage; place the damaged packaging in the emergency containers. In case of a bigger amount of leakage, to create barriers, cover drains.

### 6.3.2 Advices how to clean-up a spilled substance or mixture

The leaked mixture to drain away or fill up by a suitable absorption material, for example by the universal sorbent, sand, sawdust. The insoluble chromium hydroxide may be precipitated from the solution by adding of calcium oxide or hydroxide. Rinse the contaminated area with a bigger amount of water, which must be captured and disposed as a hazardous waste. The waste label and place at a safe place and ensure a disposal of mixture and its packaging in accordance with the waste legislation as stated in section 13. In the case of entry into watercourses, drains, contamination of soil/vegetation inform immediately firefighters and the police.

### 6.3.3 Any other information relating to spills and releases

Not applicable.

## 6.4 Reference to other sections

Personal protective means are listed in section 8. Disposal instructions are listed in section 13.

## 7. Handling and storage

### 7.1 Precautions for safe handling

Follow working instructions. Read the label (etiquette) before using. Avoid contact with respiratory organs, eyes, skin and clothing. Ensure adequate ventilation. Take off immediately all contaminated clothing. Wash hands and face thoroughly after the work. Beware of smoking, eating and drinking at the place of usage and storage of material. Prevent spills and penetration into drains. Employees shall wear protective working clothing, shoes, gloves, goggles, respirator, where appropriate by breathing apparatus.

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

Store in well-closed undamaged original containers, acid-resistant (steel, PE), in a dry, cold and well-ventilated locked rooms at the temperature 5 to 35°C. Keep out of the reach of children. Do not store together with food, beverages and feed, flammable materials and alkalis. Do not store in aluminum, copper, zinc, tin and their alloys, brass, fiberglass and galvanized materials containers. Time period of workability is 3 months in case of compliance with storage and transport conditions.

### 7.3 Specific end use(s)

Is listed in section 1.2.

## 8. Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limit (OEL), 8 h TWA:** 0,05 mg/m<sup>3</sup> (permissible exposure limits Cr), 0,1 mg/m<sup>3</sup> (maximum permissible concentration Cr), 2 mg/m<sup>3</sup> (soluble salts of Al)

**PNEC:** Chromium trioxide:

0,0034 mg/l (fresh water), 0,0034 mg/l (marine water), 0,031 mg/kg (soil), 0,15 mg/kg (sediment – fresh water), 0,15 mg/kg (sediment – marine water), 0,21 mg/l (sewage treatment plant)

Aluminum tris (dihydrogen phosphate):

0,032725 mg/l (fresh water), 0,0032725 mg/l (marine water), 0,32735 mg/l (water - intermittent releases), 50 mg/l (sewage treatment plant)

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### DNEL: Chromium trioxide:

workers: Acute / short-term exposure - local effects, Inhalation: 0,01 mg/m<sup>3</sup>

workers: Long-term exposure - local effects, Inhalation: 0,01 mg/m<sup>3</sup>

Aluminum tris (dihydrogen phosphate):

workers: Long-term exposure - systemic effects, Inhalation: 4,07 mg/m<sup>3</sup>

general population: Long-term exposure - systemic effects, Inhalation: 3,04 mg/m<sup>3</sup>

### Occupational exposure limits in the working environment

Czech Republic (Government Regulation No. 361/2007 Coll., as amended by valid act): chromium and chromium compounds II and III as Cr: **Permissible Exposure Limit (PEL)** = 0,5 mg/m<sup>3</sup>, **Maximum permissible concentration (NPK-P)** = 1,5 mg/m<sup>3</sup>. Chromium compounds VI as Cr: **Permissible Exposure Limit (PEL)** = 0,05 mg/m<sup>3</sup>, **Maximum permissible concentration (NPK-P)** = 0,1 mg/m<sup>3</sup>.

European Union (Directive No. 2006/15/EC and No. 2009/161/EU): occupational exposure limit values at the workplace – chromium, inorganic chromium compounds II and III: 2 mg/m<sup>3</sup> (8 h)

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

Work in a well-ventilated room. Follow the usual measures of health protection while working with chemical substances and mixtures, especially avoid ingestion and contact with the respiratory organs, eyes and skin. I.e. do not eat, drink and smoke while working. Wash your hands with warm water and soap before and after working. Treat your skin with appropriate protection creams. Personal protective equipment is recommended.

### 8.2.2 Individual protection measures, such as personal protective equipment

- Eye/face protection – tightly fitting safety goggles or face-shield, do not use contact lenses
- Skin protection
  - Hand protection – protective plastic (PVC), nitrile, neoprene or rubber (butyl rubber, fluorinated rubber, polychloroprene) gloves (penetration time ≥ 2 hours, gloves thickness 0,5 mm),
  - Other – chemically resistant protective working clothing, protective shoes,
- Respiratory protection – respirator, mask with filter against acid vapours, where appropriate breathing apparatus
- Thermal hazards – not applicable (mixture does not represent thermal hazard).

The manufacturer's instructions for using of personal protective equipment must be fulfilled.

### 8.2.3 Environmental exposure controls

Proceed in accordance with the valid legislation for the air and water protection. The primary danger of Electroinsulating coating is toxicity. Avoid release into the environment, capture the leakage.

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |   |   |
|---|---|
| a) appearance                                   | a clear, rich shade of orange-red colour liquid |
| b) odour  | odourless                                       |
| c) odour threshold                              | not determined                                  |
| d) pH   | 0,80 – 1,80                                     |
| e) melting point/freezing point                 | not determined                                  |
| f) initial boiling point and boiling range      | not determined                                  |
| g) flash point                                  | not determined                                  |
| h) evaporation rate                             | not determined                                  |
| i) flammability (solid, gas)                    | not flammable (liquid)                          |
| j) upper/lower flammability or explosive limits | not determined                                  |
| k) vapour pressure                              | not determined                                  |
| l) vapour density                               | not determined                                  |
| m) relative density                             | 1 220 – 1 250 kg/m <sup>3</sup>                 |
| n) solubility(ies)                              | in water unlimited (fully miscible)             |
| o) partition coefficient n-octanol/water        | not determined                                  |

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p) auto-ignition temperature	not determined
q) decomposition temperature	not determined
r) viscosity	not determined
s) explosive properties	it has not
t) oxidising properties	it has not

### 9.2 Other information

Not determined.

## 10. Stability and reactivity

### 10.1 Reactivity

Beware of following conditions: In case of compliance with storage requirements the mixture is stable. While working is necessary to follow the standards of safety and health protection at work.

Beware of following materials: alkalis – exothermic reactions, flammable materials, ammonia, arsenic, reducing agents, nitric acid, nitrates, halogens, halogenated compounds, sulphides, hydrogen sulphide, oxidising agents, metals - corrosion.

### 10.2 Chemical stability

In case of compliance with standard storage and handling conditions the mixture is stable.

### 10.3 Possibility of hazardous reactions

It must not come into contact with aluminum, zinc, lead, tin, mild steel, copper and their alloys - dissolves them slowly to generate hydrogen, which creates an explosive mixture with the air. It can react with residues of sugars and produce carbon monoxide. Alkalis – exothermic reactions.

### 10.4 Conditions to avoid

Do not allow material to freeze. Avoid compounding with alkalis.

### 10.5 Incompatible materials

It must not come into contact with aluminum, zinc, lead, tin, mild steel, copper and their alloys - dissolves them slowly to generate hydrogen, which creates an explosive mixture with the air. Alkalis – exothermic reactions, flammable materials, ammonia, arsenic, reducing agents, nitric acid, nitrates, halogens, halogenated compounds, sulphides, hydrogen sulphide, oxidising agents.

### 10.6 Hazardous decomposition products

Hydrogen during the reaction with metals. Danger of releasing of toxic fumes of metal, carbon (CO and CO<sub>2</sub>), silicon and phosphorus oxides during the fire and thermal decomposition.

## 11. Toxicological information

### 11.1 Information on toxicological effects

#### 11.1.1 Substances (chromium trioxide, aluminum tris (dihydrogen phosphate))

- acute toxicity – chromium trioxide: LD<sub>50</sub>, oral, rat: approx. 52 mg/kg; LC<sub>50</sub>, inhalation, rat (4h): approx.: 0,217 g/m<sup>3</sup>, LD<sub>50</sub>, dermal, rabbit: approx.: 57 mg/kg - chromium trioxide is toxic if swallowed, causes severe burns with severe pains, vomiting, stomach pains, risk of the esophagus and stomach perforation, possible shock and kidney and liver damage, severe burns of the mouth and throat;  
aluminum tris (dihydrogen phosphate): LD<sub>50</sub>, oral, rat: > 2 000 mg/kg, LC<sub>50</sub>, inhalation, rat (4h): > 5,1 mg/l, LD<sub>50</sub>, dermal, rabbit: > 4 640mg/kg;
- skin corrosion/irritation – chromium trioxide: corrosive effects (rabbit), cases burns of the skin and mucous membranes;
- serious eye damage/irritation – chromium trioxide: corrosive effects (rabbit), cases eye burns;  
aluminum tris (dihydrogen phosphate): strong irritating effects with the danger of severe eye damage;



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- d) respiratory or skin sensitisation – chromium trioxide: may cause sensitisation by inhalation and skin contact;
- e) germ cell mutagenicity – chromium trioxide: possible mutagenic effects to humans;
- f) carcinogenicity – chromium trioxide: possible carcinogenic effects to humans;
- g) reproductive toxicity – chromium trioxide: possible reproductive toxicity to humans;
- h) STOT - single exposure – chromium trioxide: potential toxicity of specific target organs to humans;
- i) STOT - repeated exposure – chromium trioxide: potential toxicity of specific target organs to humans;
- j) aspiration hazard – chromium trioxide is toxic if inhaled, may cause perforation of the nasal septum.

### 11.1.2 Mixtures

- a) acute toxicity – inhaled, in contact with skin and if swallowed;
- b) irritation – eyes, respiratory system and skin;
- c) corrosivity – risk of serious damage to eyes;
- d) sensitisation – possible sensitisation by inhalation and skin contact;
- e) repeated dose toxicity – danger of serious damage to health by prolonged inhalation exposure;
- f) carcinogenicity – possible carcinogenic effects to humans;
- g) mutagenicity – possible mutagenic effects to humans;
- h) toxicity for reproduction – undetected.

11.1.3 The mixture is classified as toxic, with potential carcinogenic and mutagenic effects, corrosive to eyes, irritating to respiratory system and skin, with the danger of serious damage to health by prolonged inhalation exposure and sensitization by inhalation and skin contact and dangerous for the environment.

11.1.4 Electroinsulating coating contains chromium trioxide, which is classified as an oxidising substance, with potential carcinogenic and mutagenic effects, with suspicion of impaired fertility, toxic in skin contact, ingestion and inhalation, with the danger of serious damage to organs through prolonged exposure, causing severe skin burns and eyes damage, with possible sensitization if inhaled and in contact with skin and dangerous for the environment and aluminum tris (dihydrogen phosphate), which causes serious damage to eyes.

11.1.5 Undetected.

11.1.6 The mixture is classified as toxic, with potential carcinogenic and mutagenic effects, corrosive to eyes, irritating to respiratory system and skin, with the danger of serious damage to health by prolonged inhalation exposure and sensitization by inhalation and skin contact and dangerous for the environment.

### 11.1.7 Information on likely routes of exposure

Skin/eye exposure, aspiration (inhalation), ingestion (by swallowing) – for effects see section 11.1.4.

### 11.1.8 Symptoms related to the physical, chemical and toxicological characteristics

For effects see section 11.1.4.

### 11.1.9 Delayed and immediate effects and also chronic effects from short and long-term exposure

For effects see section 11.1.4 - possible carcinogenic and mutagenic effects, serious eye damage, respiratory system, mucous membranes and skin irritation, risk of serious damage to health by prolonged inhalation exposure and sensitization by inhalation and skin contact. Ingestion leads to absorption through the gastrointestinal tract, symptoms: bloody diarrhea, vomiting, convulsions, circulatory collapse, unconsciousness, formation of methemoglobin.

### 11.1.10 Interactive effects

Undetected.

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### 11.1.11 Absence of specific data

If some of the information are not listed in section 11, they were not available.

### 11.1.12 Mixture versus substance information

Effect of the substance in the mixture is not significantly different from effects of the isolated substance.

### 11.1.13 Other information

Not applicable.

## 12. Ecological information

### 12.1 Toxicity

Ecotoxicity of the mixture components	chromium trioxide	aluminum tris (dihydrogen phosphate)
LC <sub>50</sub> (96 h, <i>Oncorhynchus mykiss</i> ) for freshwater fishes:	13 mg/l	> 100 mg/l
EC <sub>50</sub> (48 h, <i>Daphnia magna</i> ) for freshwater invertebrates:	0,05 mg/l	47,5 mg/l
NOEC (96 h, <i>Chlorella sp.</i> ) for freshwater algae:	0,1 mg/l	not determined
NOEC (7 d, <i>Pseudomonas fluorescens</i> ) for microorganisms:	0,11 mg/l	not determined
NOEC (3 h, <i>activated sludge</i> ) for microorganisms:	not determined	1 000 mg/l

### 12.2 Persistence and degradability

Not applicable to the inorganic salts - cannot be removed from the water by biological cleaning processes. CHSK and BSK not determined.

### 12.3 Bioaccumulative potential

For inorganic salts is irrelevant.

### 12.4 Mobility in soil

Not determined.

### 12.5 Results of PBT and vPvB assessment

Electroinsulating coating are not classified as a PBT or vPvB substance.

### 12.6 Other adverse effects

According to the Water Act No. 254/2001 Coll., as amended by valid act, the product is considered a defective substance. Product is toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The toxicity of the mixture will have a local impact on the ecosystems.

## 13. Disposal considerations

### 13.1 Waste treatment methods

Dispose in accordance with valid legislation related to waste. Dispose the mixture and its container as hazardous waste in a facility intended to treatment with hazardous waste. Cr<sup>6+</sup> should be reduced to Cr<sup>3+</sup>.

Recommended classification according to the catalogue: 16 05 07 (discarded inorganic chemicals, which are or contain hazardous substances) or 16 09 02 (chromates, for example potassium chromate, potassium or sodium dichromate) or 06 03 13 (solid salts and solutions containing heavy metals).

Recommended disposal methods for a contaminated packaging:

When disposal the valid legislation for the hazardous waste treatment according to the categorization and the Waste Catalogue shall be followed.

Waste code:

15 01 10 – for packaging containing residues of hazardous substances or packaging contaminated by such substances,

15 02 02 – for absorbents, filtration materials, cleaning fabrics and protective clothing contaminated by hazardous substances.

Measures for the exposure control for the waste treatment:

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Disposal of the mixture and packaging should be proceed in accordance with valid legislation for hazardous wastes treatment and personal, atmosphere and water precaution. The used packing is only meant for packing this product; it should not be reused for other purposes. After usage, empty the packing completely.

The legislation on the waste:

Czech Republic

Act No. 185/2001 Coll., on waste and amending some other Acts, as amended by valid act.

Decree of the Ministry of Environment No. 381/2001 Coll., which determines the Waste Catalogue, as amended by valid act.

European Union

Directive No. 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance).

Council Directive No. 91/689/EEC of 12 December 1991 on hazardous waste as amended by Directives No. 94/31/EC of 27 June 1994 and No. 2008/98/EC of the European Parliament and of the Council of 19 November 2008 and Regulation (EC) No. 166/2006 of the European Parliament and of the Council of 18 January 2006.

## 14. Transport information

### 14.1 UN number

UN number – ground transport: 2922

### 14.2 UN proper shipping name

UN name: corrosive liquid, toxic, N.O.S.

### 14.3 Transport hazard class(es)

Hazard class 8 – corrosive substances.

### 14.4 Packing group

Packing group - II

### 14.5 Environmental hazards

According to the Water Act No. 254/2001 Coll., as amended by valid act, the product is considered a defective substance. Product is toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The toxicity of the mixture will have a local impact on the ecosystems.

### 14.6 Special precautions for user

The mixture is classified as toxic, with potential carcinogenic and mutagenic effects, corrosive to eyes, irritating to respiratory system and skin, with the danger of serious damage to health by prolonged inhalation exposure and sensitization by inhalation and skin contact. Unsuitable packaging: lead, aluminum, zinc, copper, tin and their alloys, brass.

Warning: Corrosive substances

Kemlercode: 86

Note:

EmS: F-A/S-B

Further transport information: ADR / RID, IMDG, ADN, IATA / ICAO

### 14.7 Transport in bulk according to Annex II MARPOL 73/78 and the IBC code

Not regulated.

## 15. Regulatory information

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

Czech Republic

Act No. 258/2000 Coll., on the protection of public health and amending some related Acts, as amended by valid act.

Government Regulation No. 361/2007 Coll., which stipulates the conditions of health protection at work, as amended by valid act.

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Act No. 350/2011 Coll., on the chemical substances and chemical mixtures and amending some Acts (chemical Act), as amended by valid act.

Act No. 185/2001 Coll., on waste and amending some other Acts, as amended by valid act.

Decree of the Ministry of Environment No. 383/2001 Coll., on details of waste disposal, as amended by valid act.

Act No. 477/2001 Coll., on packaging and amending some related Acts (Act on Packaging), as amended by valid act.

### European union

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive No. 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive No. 76/769/EEC and Commission Directives No. 91/155/EEC, No. 93/67/EEC, No. 93/105/EC and No. 2000/21/EC, as amended by valid act.

Regulation (EC) No. 689/2008 of the European Parliament and of the Council of 17 June 2008 concerning the export and import of dangerous chemicals, as amended by valid act.

Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives No. 67/548/EEC and No. 1999/45/EC, and amending Regulation (EC) No. 1907/2006 (Text with EEA relevance), as amended by valid act.

Council Regulation (EC) No. 440/2008 of 30 May 2008 laying down test methods pursuant to Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance), as amended by valid act.

Directive No. 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance).

Council Directive No. 91/689/EEC of 12 December 1991 on hazardous waste as amended by Directives No. 94/31/EC of 27 June 1994 and No. 2008/98/EC of the European Parliament and of the Council of 19 November 2008 and Regulation (EC) No. 166/2006 of the European Parliament and of the Council of 18 January 2006.

Council Directive No. 94/55/EC of 21 November 1994 on the approximation of the laws of the Member States with regard to the transport of dangerous goods by road.

Council Directive No. 96/49/EC of 23 July 1996 on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail.

Council Directive No. 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work.

Council Directive No. 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive No. 89/391/EEC).

Commission Directive No. 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive No. 98/24/EC and amending Directives No. 91/322/EEC and No. 2000/39/EC (Text with EEA relevance).

Commission Directive No. 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive No. 98/24/EC and amending Commission Directive No. 2000/39/EC (Text with EEA relevance).

Council Directive No. 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances.

Commission Regulation (EU) No. 453/2010 of 20 May 2010 amending Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance).

### 15.2 Chemical safety assessment

Chemical safety assessment for the mixture has not been carried out by the producer.

## 16. Other information

Statement:

# Safety data sheet

According to the Commission Regulation (EU) No. 453/2010

Date of issue: 1. 9. 2013

Revision Date: 31. 5. 2015

## Elsil CT

Safety Data Sheet has been prepared in accordance with Regulations (EC) of the European Parliament and of the Council No. 1907/2006 and No. 1272/2008 and Commission Regulation (EU) No. 453/2010. This product shall be stored, handled and used with good hygiene practices of industry and in accordance with valid legislation. These information does not substitute the quality specification and cannot be considered as a guarantee of the suitability and applicability of this product for a specific application. The mentioned information correspond to a current state of knowledge and experiences and are in accordance with valid legislation. The customer is responsible for compliance with the valid regional legislation.

Sources of data used to compile the safety data sheet:

Safety Data Sheet for Elsil CT (2,5–3%) (the colloidal solution of chromium), safety data sheets of chromium trioxide and aluminum tris (dihydrogen phosphate) suppliers

Danger, Warning:

GHS03 danger  
GHS05 danger  
GHS06 danger  
GHS08 danger  
GHS09 warning

Wording of H-phrases, P-phrases:

Hazard statement(s) according to sections 2 and 3:

H271 – May cause fire or explosion; strong oxidiser.  
H301 – Toxic if swallowed.  
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.  
H361 – Suspected of damaging fertility or 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.

Precautionary statement(s) according to sections 2 and 3:

Prevention:

P201 – Obtain special instructions before use.  
P202 – Do not handle until all safety precautions have been read and understood.  
P210 – Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
P260 – Do not breathe dust/fume/gas/mist/vapours/spray.  
P262 – Do not get in eyes, on skin, or on clothing.  
P264 – Wash eyes and skin thoroughly after handling.  
P273 – Avoid release to the environment.  
P280 – Wear protective gloves/protective clothing/eye protection/face protection.  
P281 – Use personal protective equipment as required.

Response:

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P302+352 – IF ON SKIN: Wash with plenty of soap and water.  
P303+P361+P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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According to the Commission Regulation (EU) No. 453/2010

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## Elsil CT

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

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.

P310 – Immediately call a POISON CENTER or doctor/physician.

P330 – Rinse mouth.

Storage:

P403+P233 – Store in a well-ventilated place. Keep container tightly closed.

P405 – Store locked.

Disposal:

P501 – Dispose of contents/container in hazardous waste collection points.

Ox. Sol. 1: oxidising solid, hazard category 1

Carc. 1A: carcinogenicity, hazard category 1A

Muta. 1B: germ cell mutagenicity, hazard category 1B

Repr. 2: reproductive toxicity, hazard category 2

Acute Tox. 2: acute toxicity (inhalation), hazard category 2

Acute Tox. 3: acute toxicity (oral, dermal), hazard category 3

STOT RE 1: specific target organ toxicity — repeated exposure, hazard category 1

Skin Corr. 1A: skin corrosion, hazard category 1A

Eye Dam. 1: serious eye damage, hazard category 1

Resp. Sens. 1: sensitisation - respirat., hazard category 1

Skin Sens. 1: sensitisation - skin, hazard category 1

STOT SE 3: specific target organ toxicity - single exposure, hazard category 3, respiratory tract irritation

Aquatic Acute 1: hazardous to the aquatic environment - acute hazard, category 1

Aquatic Chronic 1: hazardous to the aquatic environment - chronic hazard, category 1

BL	Safety Data sheet SDS
DNEL	Derived no-effect level
EC <sub>50</sub>	median effective concentration
LD <sub>50</sub>	median lethal dose
LC <sub>50</sub>	median lethal concentration
NOEC	no observable effect concentration
NPK-P	maximum permissible concentration
OEL	occupational exposure limit
PBT	Persistent, bioaccumulative and toxic
PEL	permissible exposure limit
PNEC	Predicted no-effect concentration
STOT	Specific Target Organ Toxicity
TWA	time weighted average
vPvB	Very persistent, very bioaccumulative

### Instructions for training:

Persons who handling the product shall be instructed about the handling hazards and requirements for the health and environment precaution (see the appropriate provisions of the Labour Code).

### Access to information:

Each employer shall in accordance with Article 35 of the Regulation (EC) of the European Parliament and of the Council No. 1907/2006 to provide access to the information from the safety data sheet to all personnel who use this product or are exposed to its effects at work, as well as to their representatives.

# Safety data sheet

According to the Commission Regulation (EU) No. 453/2010

Date of issue: 1. 9. 2013

Revision Date: 31. 5. 2015

## Elsil CT

**Revision:** 9. 11. 2012 – supplement to section 1. (registration number of the mixture component, use, Competent person responsible for the SDS), correction of sections 2., 3., 11. and 16. (classification of mixture according to SDS), supplement to section 8. (PNEC, DNEL and PEL) and 10. (hazardous reactions, incompatible materials and conditions), supplement of section 11. (acute toxicity) and 12. (ecotoxicity) and correction of section 15. (the valid legislation update)

**Revision:** 14.1.2013 – correction of SDS name + correction of section 1. (product name), correction of section 7. (storage temperature) and 9.

**Revision:** 18.2.2013 – correction of section 14. (UN number and name, packing group)

**Revision:** 4. 3. 2013 – change of person responsible for the SDS

**Revision:** 14. 8. 2013 – change of product name

**Revision:** 31. 5. 2015 – change of the classification according to the Regulation (EC) No. 1272/2008

### The extent of responsibility:

Responsibilities of safety data sheet recipients (customers, users, distributors, etc.) is to ensure that the information contained therein are well understood by all personnel who may use, handle, dispose or in any way come into contact with the product. Information and instructions given in this safety data sheet are reliable, provided that the product is used under the prescribed conditions and in accordance with the designated uses listed on the packaging or in the Product Data Sheets. User is responsible for any other application of this product, including the application of this product in combination with any another product or any other processes. Hence the user is responsible for determination of appropriate safety measures and the implementation of legislation covering his own activities. This version of the safety data sheet replaces all previous versions.