

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 05.03.2019

Version number 73

Revision: 05.03.2019

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

1.1 Product identifier**Product name:** Chloride**Catalog number:** 00515131, 515130BT, 4515130BT, 515131BT, 4515131BT, 00515139BT, 502461, 00512461**1.2 Relevant identified uses of the substance or mixture and uses advised against****Application of the substance / the preparation:** Reagent for water analysis**1.3 Details of the supplier of the safety data sheet****Supplier:**

Tintometer GmbH
Schleefstraße 8-12
44287 Dortmund
Made in Germany
www.lovibond.com

phone: +49 231 94510-0
e-mail: sales@tintometer.de

Tintometer GmbH
Division AQUALYTIC®
Schleefstr. 12
44287 Dortmund
Made in Germany
www.aqualytic.de

phone: +49 231 94510-755
e-mail: sales@aqualytic.de

The Tintometer Limited
Lovibond® House
Sun Rise Way
Amesbury
Wiltshire SP4 7GR
United Kingdom

phone : +44 1980 664800
e-mail: SDS@tintometer.com

Informing department:

e-mail: sds@tintometer.de
Product Safety Department

1.4 Emergency telephone number:

+44 1235 239670
Languages: English

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture**Classification according to Regulation (EC) No 1272/2008**

GHS08 health hazard

Muta. 1B	H340	May cause genetic defects.
Carc. 1B	H350	May cause cancer.
Repr. 1B	H360FD	May damage fertility. May damage the unborn child.



GHS05 corrosion

Eye Dam. 1	H318	Causes serious eye damage.
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GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.
 Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
 Skin Sens. 1 H317 May cause an allergic skin reaction.

2.2 Label elements

· **Labelling according to Regulation (EC) No 1272/2008** The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



GHS05



GHS07



GHS08



GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**

boric acid
 potassium chromate
 silver nitrate
 potassium dichromate

· **Hazard statements**

H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H317 May cause an allergic skin reaction.
 H340 May cause genetic defects.
 H350 May cause cancer.
 H360FD May damage fertility. May damage the unborn child.
 H410 Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P201 Obtain special instructions before use.
 P280 Wear protective gloves/protective clothing/eye protection.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 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+P311 IF exposed or concerned: Call a POISON CENTER/doctor.
 P405 Store locked up.

· **Additional information:**

Restricted to professional users.

· **2.3 Other hazards** No further relevant information available.

· **Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· **Description:** Mixture of organic and inorganic compounds

· **Dangerous components:**

The percent content of the chromium compound mentioned below refers to the amount of chromate ions dissolved in water.

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CAS: 10043-35-3 EINECS: 233-139-2 Index No: 005-007-00-2 Reg.nr.: 01-2119486683-25-XXXX	boric acid ⚠ Repr. 1B, H360FD	50–60%
CAS: 7789-00-6 EINECS: 232-140-5 Index No: 024-006-00-8	potassium chromate ⚠ Muta. 1B, H340; Carc. 1B, H350i; ⚠ Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10); ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	10–<20%
CAS: 7761-88-8 EINECS: 231-853-9 Index No: 047-001-00-2 Reg.nr.: 01-2119513705-43-XXXX	silver nitrate ⚠ Ox. Sol. 2, H272; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400 (M=1000); Aquatic Chronic 1, H410 (M=100); ⚠ Acute Tox. 4, H302	2.5–<5%
CAS: 7778-50-9 EINECS: 231-906-6 Index No: 024-002-00-6 Reg.nr.: 01-2119454792-32-XXXX	potassium dichromate ⚠ Ox. Sol. 2, H272; ⚠ Acute Tox. 3, H301; Acute Tox. 2, H330; ⚠ Resp. Sens. 1, H334; Muta. 1B, H340; Carc. 1B, H350; Repr. 1B, H360FD; STOT RE 1, H372; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H312; Skin Sens. 1, H317	0.3–<1%

SVHC

CAS: 10043-35-3	boric acid
CAS: 7789-00-6	potassium chromate
CAS: 7778-50-9	potassium dichromate

· **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information** Instantly remove any clothing soiled by the product.

· **After inhalation**

Supply fresh air.

Seek medical treatment.

· **After skin contact**

Instantly wash with water and soap and rinse thoroughly.

Seek medical treatment.

· **After eye contact**

Rinse opened eye for several minutes (at least 15 min) under running water.

Call a doctor immediately.

· **After swallowing**

Rinse out mouth and then drink 1-2 glasses of water.

Seek medical treatment.

· **4.2 Most important symptoms and effects, both acute and delayed:**

Irritation and corrosion

allergic reactions

absorption

after inhalation:

mucosal irritations, Cough, Shortness of breath

asthma attacks

after swallowing:

sickness

vomiting

bloody diarrhoea

after absorption:

methaemoglobinaemia

CNS disorders

ataxia (impaired locomotor coordination)

drop in temperature

cardiovascular disorders

fatigue

unconsciousness

cramps

· **Danger**

Danger of system failure.

risk of skin sensitization

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risk of airways sensitization

- **4.3 Indication of any immediate medical attention and special treatment needed:** No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture**
The product is not combustible.
Formation of toxic gases is possible during heating or in case of fire.
Can be released in case of fire:
Nitrogen oxides (NO_x)
chromium trioxide
Dipotassium oxide
Carbon monoxide (CO) and carbon dioxide (CO₂)
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained breathing apparatus.
Wear full protective suit.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter drains.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Ambient fire may liberate hazardous vapours.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
- **Advice for non-emergency personnel:**
Wear protective equipment. Keep unprotected persons away.
Avoid substance contact.
Ensure adequate ventilation
Use breathing protection against the effects of fumes/dust/aerosol.
- **Advice for emergency responders:** Protective equipment: see section 8
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or water bodies.
Inform respective authorities in case product reaches water or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Collect mechanically.
Dispose of contaminated material as waste according to item 13.
- **6.4 Reference to other sections**
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
- **Advice on safe handling:** Ensure good ventilation/exhaustion at the workplace.
- **Hygiene measures:**
Do not get in eyes, on skin, or on clothing.
Take off immediately all contaminated clothing.
Store protective clothing separately.
Wash hands during breaks and at the end of the work.
Do not eat, drink or smoke when using this product.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:** Store away from flammable substances.
- **Further information about storage conditions:**
Store in a locked cabinet or with access restricted to technical experts or their assistants.
Store in cool, dry conditions in well sealed containers.

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- Protect from heat and direct sunlight.
 Store in the dark.
 Protect from the effects of light.
 Protect from humidity and keep away from water.
 This product is hygroscopic.
 · **Recommended storage temperature:** 20°C +/- 5°C
 · **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Components with limit values that require monitoring at the workplace:

CAS: 9004-34-6 cellulose

WEL (Great Britain)	Short-term value: 20* mg/m ³ Long-term value: 10* 4** mg/m ³ *inhalable dust **respirable
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CAS: 7789-00-6 potassium chromate

WEL (Great Britain)	Long-term value: 0.05 mg/m ³ as Cr; Carc, Sen, BMGV
BOELV (European Union)	Long-term value: 0.005; 0.01*; 0.025** mg/m ³ as Cr;*until 01/17/2025**processes generating fume

CAS: 7761-88-8 silver nitrate

WEL (Great Britain)	Long-term value: 0.01 mg/m ³ as Ag
IOELV (European Union)	Long-term value: 0.01 mg/m ³ as Ag

CAS: 7778-50-9 potassium dichromate

WEL (Great Britain)	Long-term value: 0.05 mg/m ³ as Cr; Carc, Sen, BMGV
BOELV (European Union)	Long-term value: 0.005; 0.01*; 0.025** mg/m ³ as Cr;*until 01/17/2025**processes generating fume

· Regulatory information

WEL (Great Britain): EH40/2018
 BOELV (European Union): 98/24/EG
 IOELV (European Union): (EU) 2017/164

· DNELs

CAS: 10043-35-3 boric acid

Oral	DNEL	0.98 mg/kg (Consumer / acute / systemic effects)
		0.98 mg/kg (Consumer / long-term / systemic effects)
Dermal	DNEL	392 mg/kg (Worker / long-term /systemic effects)
		196 mg/kg (Consumer / long-term / systemic effects)
Inhalative	DNEL	8.3 mg/m ³ (Worker / long-term /systemic effects)
		4.15 mg/m ³ (Consumer / long-term / systemic effects)

CAS: 7761-88-8 silver nitrate

Inhalative	DNEL	0.016 mg/m ³ (Worker / long-term /systemic effects)
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· Recommended monitoring procedures:

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms DIN EN 482 and DIN EN 689.

· PNECs

CAS: 10043-35-3 boric acid

PNEC	10 mg/l (Sewage treatment plant)
	2.02 mg/l (Marine water)
	13.7 mg/l (Aquatic intermittent release)
	2.02 mg/l (Fresh water)
PNEC	5.4 mg/kg (Soil)

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· Ingredients with biological limit values:	
CAS: 7789-00-6 potassium chromate	
BMGV (Great Britain)	10 µmol/mol creatinine Medium: urine Sampling time: post shift Parameter: chromium
CAS: 7778-50-9 potassium dichromate	
BMGV (Great Britain)	10 µmol/mol creatinine Medium: urine Sampling time: post shift Parameter: chromium

· **Regulatory information** BMGV (Great Britain): EH40/2011

· **Additional information:** The lists that were valid during the compilation were used as basis.

· 8.2 Exposure controls

· **Engineering measures:**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See item 7.

· **Personal protective equipment**

· **Breathing equipment:**

Use breathing protection against the effects of fumes/dust/aerosol.

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

· **Recommended filter device for short term use:** Filter P3

· **Protection of hands:**

Protective gloves.

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

· **Material of gloves**

nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

· **Penetration time of glove material**

Value for the permeation: Level = 1 (< 10 min)

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Tightly sealed safety glasses.

· **Body protection:** Protective work clothing.

· **Limitation and supervision of exposure into the environment:** Do not allow product to reach sewage system or water bodies.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties	
· Appearance:	
Form / Physical state:	Tablets
Colour:	Beige
· Odour:	Odourless
· Odour threshold:	Not applicable
· pH-value (1.8 g/l) at 20°C:	7.1
· Melting point/Freezing point:	Not determined
· Initial boiling point and boiling range:	Not determined
· Flash point:	Not applicable
· Flammability (solid, gas):	The product is not combustible.
· Decomposition temperature:	> 171°C (CAS 10043-35-3)
· Auto-ignition temperature:	Product is not self-igniting.
· Explosive properties:	Product is not explosive.
· Flammability or explosive limits:	
Lower:	Not applicable

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Upper:	Not applicable
· Oxidising properties:	Oxidising potential CAS 7761-88-8: is classified as oxidising.
· Vapour pressure:	Not applicable.
· Density at 20°C:	1.84 g/cm ³
· Relative density:	Not determined.
· Vapour density:	Not applicable.
· Evaporation rate:	Not applicable.
· Solubility(ies):	
Water:	Partially insoluble.
· Partition coefficient: n-octanol/water:	Not applicable.
· Viscosity:	Not applicable.
· Solvent content:	
Organic solvents:	0 %
Solids content:	100 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** see section 10.3
- **10.2 Chemical stability** Stable at ambient temperature (room temperature).
- **10.3 Possibility of hazardous reactions**
Reacts with alcohols
Reacts with strong alkalis and oxidizing agents.
Reacts with reducing agents
- **10.4 Conditions to avoid** To avoid thermal decomposition do not overheat.
- **10.5 Incompatible materials:**
metals
aluminium
steel
organic substances
combustible substances
- **10.6 Hazardous decomposition products:** see section 5

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values that are relevant for classification:**
The following statements refer to the individual components.

CAS: 10043-35-3 boric acid		
Oral	LD50	2660 mg/kg (rat) (OECD 401) (GESTIS, ECHA registrant)
Dermal	LD50.	>2000 mg/kg (rat) (ECHA, registrant: no deaths occurred.)
	LD ₀	1500 mg/kg (child) (MERCK)
Inhalative	LC50.	>2.03 mg/l/4h (rat) (OECD 403, aerosol) (ECHA, registrant: no deaths occurred)
	NOAEL	9.6 mg/kg (rat) (NTP)
CAS: 7789-00-6 potassium chromate		
Oral	LD50.	180 mg/kg (mouse)

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CAS: 7761-88-8 silver nitrate		
Oral	LD50	1173 mg/kg (rat) (RTECS)
CAS: 7778-50-9 potassium dichromate		
Oral	LD50	90.5 mg/kg (rat) (OECD 401) (ECHA, registrant: LD50 = 90.5 mg/kg female to 168.0 mg/kg male)
	LDLo	26 mg/kg (child) 143 mg/kg (man)
Dermal	LD50	1170 mg/kg (rat) (IUCLID)
Inhalative	LC50	0.094 mg/l/4h (rat) (OECD 403, Aerosol)
	LD50 IPR	28 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye damage.
Risk of corneal clouding.

Information on components:		
CAS: 10043-35-3 boric acid		
Irritation of skin	OECD 404	(rabbit: no irritation) (Registrant, ECHA)
Irritation of eyes	OECD 405	(rabbit: slight irritation) (IUCLID)
CAS: 7778-50-9 potassium dichromate		
Irritation of skin	OECD 404	(rabbit: irritation)

- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **Information on components:**
CAS 7778-50-9: Sensitizing effect by inhalation and skin contact is possible by prolonged exposure.

CAS: 10043-35-3 boric acid		
Sensitisation	OECD 406	(guinea pig: negative)
CAS: 7778-50-9 potassium dichromate		
Sensitisation	Patch test (human)	(positive) (IUCLID)

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)** The following statements refer to the mixture:
- **Germ cell mutagenicity**
May cause genetic defects.
- **Carcinogenicity**
May cause cancer.
- **Reproductive toxicity**
May damage fertility. May damage the unborn child.
- **STOT (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.
- **STOT (specific target organ toxicity) -repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Information on components:**
OECD 414: Teratogenicity testing
OECD 473: Mutagenicity testing
OECD 471, 474, 476, 487: Germ cell mutagenicity testing

CAS: 10043-35-3 boric acid		
OECD 471	(negative) (Bacterial Reverse Mutation Test - Ames test)	
OECD 476	(negative) (In Vitro Mammalian Cell Gene Mutation Test) (mouse lymphomea test)	
OECD 414	(negative) (oral, rat) (ECHA, registrant: no evidence of developmental toxicity up to 55 mg/kg bw. At 76 mg/kg bw there was reduced fetal bodyweight, short and wavy ribs, and these effects disappeared during the postnatal period.)	

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OECD 474 (negative) (in vivo, mice)

Additional toxicological information:

Inhalable chromium (VI) compounds have clearly shown themselves to be carcinogenic in animal experiments.

Poor tendency for ulcers to heal following penetration of substance into the wound.

Lethal dose (man): 0.5 g

Antidotes: chelating agents such as EDTA, DMPS

CAS 10043-35-3: Absorption through gastro-intestinal tract, mucous membranes

This substance should be handled with particular care.

Experience with humans:

CAS 7789-00-6 / 7778-50-9: Can cause liver damages.

CAS 10043-35-3 / 7778-50-9: Can cause kidney damages.

CAS 7778-50-9: May cause lung damages.

CAS 7778-50-9: Can cause cardiac damages.

SECTION 12: Ecological information**12.1 Toxicity****Aquatic toxicity:****CAS: 10043-35-3 boric acid**EC50 133 mg/l/48h (Daphnia magna)
(ECOTOX)LC50 50–100 mg/l/96h (rainbow trout)
(ECOTOX)**CAS: 7789-00-6 potassium chromate**EC50 0.02 mg/l/48h (Daphnia magna)
(Ecotox)0.18 mg/l/48h (Daphnia pulex)
LC50 39.8 mg/l/96h (fathhead minnow)
(ECOTOX)**CAS: 7761-88-8 silver nitrate**LC50 0.00022 mg/l/48h (Daphnia magna) (OECD 202)
(Merck, Ag-Ion)EC10 0.0021 mg/l (Daphnia magna) (21)
(Registrant, ECHA)NOEC 0.00037 mg/l (fathhead minnow) (OECD 210)
(Merck)LC50 0.0012 mg/l/96h (fathhead minnow) (US-EPA)
(Merck, Ag-Ion)**CAS: 7778-50-9 potassium dichromate**EC50 0.62 mg/l/48h (Daphnia magna) (OECD 202)
(Merck)NOEC 0.016–0.064 mg/l (Daphnia magna) (7d)
6 mg/l (fathhead minnow) (7d)IC50 0.16–0.59 mg/l/96 h (Chlorella vulgaris)
(IUCLID)

EC50 0.31 mg/l/72 h (Desmodesmus subspicatus)

LC50 58.5 mg/l/96h (byr)
0.131 mg/l/96h (bluegill)
160 mg/l/96h (guppy)
26.13 mg/l/96h (fathhead minnow)
(Merck/IUCLID)**Bacterial toxicity:****CAS: 7778-50-9 potassium dichromate**

EC50 58 mg/l (Photobacterium phosphoreum) (30 min; Microtox-Test)

12.2 Persistence and degradability No further relevant information available.**12.3 Bioaccumulative potential**

BCF = Bioconcentration factor

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Pow = n-octanol/wasser partition coefficient
log Pow < 1 = Does not accumulate in organisms.

CAS: 10043-35-3 boric acid

log Pow	-1.09 (.) (OECD 107, 22°C) (Merck)
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CAS: 7778-50-9 potassium dichromate

BCF	17.4 (rainbow trout)
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- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.
- **12.6 Other adverse effects** Avoid transfer into the environment.
- **Water hazard:**
Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into soil.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Hand over to disposers of hazardous waste.

· European waste catalogue	
16 05 06*	laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals
16 09 02*	chromates, for example potassium chromate, potassium or sodium dichromate

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

SECTION 14: Transport information

- | | |
|---|--|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, IMDG, IATA | UN3077 |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG · IATA | 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (SILVER NITRATE, potassium chromate)
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (SILVER NITRATE, potassium chromate), MARINE POLLUTANT
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (SILVER NITRATE, potassium chromate) |

- **14.3 Transport hazard class(es)**

- **ADR**



- **Class** 9 (M7) Miscellaneous dangerous substances and articles.
- **Label** 9

- **IMDG, IATA**



- **Class** 9 Miscellaneous dangerous substances and articles.

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· Label	9
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR): · Special marking (IATA):	Product contains environmentally hazardous substances: silver nitrate, potassium chromate Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
· 14.6 Special precautions for user · Kemler Number: · EMS Number: · Segregation groups · Stowage Category · Stowage Code	Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F Heavy metals and their salts (including their organometallic compounds) A SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· ADR · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g 3 E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g

SECTION 15: Regulatory information

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

· Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:

None of the ingredients is listed.

· Directive 2012/18/EU (SEVESO III):

· Named dangerous substances - ANNEX I None of the ingredients is listed.

· Seveso category E1 Hazardous to the Aquatic Environment

· Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t

· Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t

· LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)

CAS: 7789-00-6	potassium chromate	Sunset date: 2017-09-21
CAS: 7778-50-9	potassium dichromate	Sunset date: 2017-09-21

· REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 28, 29, 30, 47, 72

· Regulation (EU) No 649/2012

None of the ingredients is listed.

· National regulations

· Information about limitation of use:

Observe employment restrictions for pregnant and nursing mothers according to the 'mother protection guideline' (92/85/EEC).
Employment restrictions concerning young persons must be observed.

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· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H272 May intensify fire; oxidiser.
 H301 Toxic if swallowed.
 H302 Harmful if swallowed.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 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.
 H350i May cause cancer by inhalation.
 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.

· **Training hints** Provide adequate information, instruction and training for operators.

· **Abbreviations and acronyms:**

OECD: Organisation for Economic Co-operation and Development
 STOT: specific target organ toxicity
 SE: single exposure
 RE: repeated exposure
 EC50: half maximal effective concentration
 IC50: half maximal inhibitory concentration
 NOEL or NOEC: No Observed Effect Level or Concentration
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 DNEL: Derived No-Effect Level (REACH)
 PNEC: Predicted No-Effect Concentration (REACH)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 SVHC: Substances of Very High Concern
 vPvB: very Persistent and very Bioaccumulative
 Ox. Sol. 2: Oxidizing solids – Category 2
 Acute Tox. 3: Acute toxicity – Category 3
 Acute Tox. 4: Acute toxicity – Category 4
 Acute Tox. 2: Acute toxicity – Category 2
 Skin Corr. 1B: Skin corrosion/irritation – Category 1B
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 Resp. Sens. 1: Respiratory sensitisation – Category 1
 Skin Sens. 1: Skin sensitisation – Category 1
 Muta. 1B: Germ cell mutagenicity – Category 1B
 Carc. 1B: Carcinogenicity – Category 1B
 Repr. 1B: Reproductive toxicity – Category 1B
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· **Sources**

Data arise from safety data sheets, reference works and literature.
 ECHA: European CHemicals Agency <http://echa.europa.eu>

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ECOTOX Database
GESTIS- Stoffdatenbank (Substance Database, Germany)
IUCLID (International Uniform Chemical Information Database)
NTP (National Toxicology Program)
RTECS (Registry of Toxic Effects of Chemical Substances)

· * Data compared to the previous version altered.

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