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

Printing date 27.10.2023 Version number 4 (replaces version 3) Revision: 27.10.2023

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

· **1.1 Product identifier**

· **Product name: Reference Standard AOCS 3.0R 28.0Y**

· **Catalog number:** 56Z068398, 56L0683, 134280

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

· **Application of the substance / the preparation:** Coloured Standard Solution for calibration purposes

· **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 (0)231 94510-0
e-mail: sales@lovibond.com

The Tintometer Limited
Lovibond® House
Sun Rise Way
Amesbury
Wiltshire SP4 7GR
United Kingdom
phone : +44 1980 664800
e-mail: SDS@lovibond.uk

· **Informing department:**
e-mail: sds@lovibond.com
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

Carc. 1B H350i May cause cancer by inhalation.

GHS05 corrosion

Met. Corr.1 H290 May be corrosive to metals.

· **2.2 Label elements**

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

· **Hazard pictograms**

GHS05

GHS08

· **Signal word** Danger

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· **Hazard-determining components of labelling:**
cobalt dichloride hexahydrate
· **Hazard statements**
H290 May be corrosive to metals.
H350i May cause cancer by inhalation.
· **Precautionary statements**

P280	Wear protective gloves/protective clothing/eye protection.
P201	Obtain special instructions before use.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P390	Absorb spillage to prevent material damage.
P405	Store locked up.

· **Additional information:**
EUH208 Contains dipotassium hexachloroplatinate. May produce an allergic reaction.
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.
· **Determination of endocrine-disrupting properties**
The product does not contain substances with endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**
· **Description:** aqueous solution
· **Dangerous components:**
The percent content of the cobalt compound mentioned below refers to the amount of the pure cobalt therein.

CAS: 7647-01-0 EINECS: 231-595-7 Index No: 017-002-01-X Reg.nr.: 01-2119484862-27-XXXX	hydrochloric acid Met. Corr.1, H290; Skin Corr. 1B, H314; STOT SE 3, H335 Specific concentration limits: Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 % STOT SE 3; C ≥ 10 %	2.5–5%
CAS: 16921-30-5 EINECS: 240-979-3 Index No: 078-007-00-3	dipotassium hexachloroplatinate Acute Tox. 3, H301; Resp. Sens. 1, H334; Eye Dam. 1, H318; Skin Sens. 1, H317	0.1–<1%
CAS: 7791-13-1 EINECS: 231-589-4 Index No: 027-004-00-5	cobalt dichloride hexahydrate Resp. Sens. 1, H334; Muta. 2, H341; Carc. 1B, H350i; Repr. 1B, H360F; Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10); Acute Tox. 4, H302; Skin Sens. 1, H317 Specific concentration limit: Carc. 1B; H350i: C ≥ 0.01 %	0.01-<0.025%

· **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.
Get medical advice/attention.
· **After skin contact**
Instantly rinse with water.
Get medical advice/attention.
· **After eye contact** Rinse opened eye for several minutes (at least 15 min) under running water. Then consult doctor.
· **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:**
allergic reactions
irritating effects possible

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· **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:
Hydrogen chloride (HCl)
· **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
· **Advice for emergency responders:** Protective equipment: see section 8

· **6.2 Environmental precautions:**
Do not allow product to reach sewage system or water bodies.
Dilute with much water.
· **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, universal binders).
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.
Prevent formation of aerosols.
· **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**
· **Requirements to be met by storerooms and containers:**
Store in cool location.
Keep only in original packaging.
· **Information about storage in one common storage facility:** Store away from metals.
· **Further information about storage conditions:**
Store in a locked cabinet or with access restricted to technical experts or their assistants.
Protect from heat and direct sunlight.
Protect from the effects of light.
Protect from humidity and keep away from water.

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· **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: 7647-01-0 hydrochloric acid	
WEL (Great Britain)	Short-term value: 8 mg/m³, 5 ppm Long-term value: 2 mg/m³, 1 ppm (gas and aerosol mists)
IOELV (European Union)	Short-term value: 15 mg/m³, 10 ppm Long-term value: 8 mg/m³, 5 ppm

· **Regulatory information**
WEL (Great Britain): EH40/2020
IOELV (European Union): (EU) 2019/1831

· **DNELs**
Derived No Effect Level (DNEL)

CAS: 7647-01-0 hydrochloric acid		
Inhalative	DNEL	15 mg/m³ (Worker / acute / local effects) 8 mg/m³ (Worker / long-term / local effects)

· **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**
Predicted No Effect Concentration (PNEC)

CAS: 7647-01-0 hydrochloric acid	
PNEC	0.036 mg/l (Sewage treatment plant) 0.036 mg/l (Marine water) 0.045 mg/l (Aquatic intermittent release) 0.036 mg/l (Fresh water)

· **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.

· **Individual protection measures, such as personal protective equipment**
Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled.
· **Eye/face protection**
Safety glasses
Use safety glasses that have been tested and approved in accordance with government standards such as EN 166.
· **Hand protection**
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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Other skin protection (body protection):** Protective work clothing.
· **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
· **Recommended filter device for short term use:** Combination filter E-P2

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· **Environmental exposure controls** 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**	
· **Physical state**	Fluid
· **Form:**	Solution
· **Colour:**	Yellow
· **Odour:**	Odourless
· **Odour threshold:**	Not applicable.
· **Melting point/Freezing point:**	0°C
· **Boiling point or initial boiling point and boiling range**	100°C (CAS: 7732-18-5 water)
· **Flammability**	Not applicable.
· **Explosive properties:**	Product is not explosive.
· **Lower and upper explosion limit**	
Lower:	Not applicable.
Upper:	Not applicable.
· **Flash point:**	Not applicable.
· **Auto-ignition temperature:**	Not applicable.
· **Decomposition temperature:**	Not determined.
· **pH**	Strongly acidic
· **Kinematic viscosity**	Not determined.
· **Solubility**	
· **Water:**	Fully miscible
· **Partition coefficient n-octanol/water (log value)**	Not applicable (mixture).
· **Vapour pressure:**	Not determined.
· **Density and/or relative density**	
· **Density at 20°C:**	~1.01 g/cm³
· **Relative density:**	Not determined.
· **Relative gas density**	Not determined.
· **Particle characteristics**	Not applicable (liquid).

· **9.2 Other information**

· **Information with regard to physical hazard classes**	
· **Corrosive to metals**	May be corrosive to metals.
· **Metals that are corroded by the substance or mixture**	Information on incompatible materials can be found in Sections 7 and 10.
· **Other safety characteristics**	
· **Oxidising properties:**	none
· **Additional information**	
· **Solids content:**	< 0.5 %
· **Solvent content:**	
· **Organic solvents:**	0 %
· **Water:**	> 95 %

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 metals forming hydrogen (Danger of explosion in case of large amounts!)
Corrosive action on metals
Reacts with alkali (lyes)
· **10.4 Conditions to avoid** Strong heating (decomposition)
· **10.5 Incompatible materials:**
metals
alkali metals
aluminium
steel

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· **10.6 Hazardous decomposition products:** see section 5

SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**		
CAS: 7647-01-0 hydrochloric acid		
Inhalative	LC50	3124 ppm / 1h (rat) (RTECS,V, pure)
CAS: 16921-30-5 dipotassium hexachloroplatinate		
Oral	LD50	195 mg/kg (rat) (OECD 401) (ECHA)
CAS: 7791-13-1 cobalt dichloride hexahydrate		
Oral	LD50	766 mg/kg (rat) (RTECS)
Dermal	LD50.	>2000 mg/kg (rat) (RTECS CAS 1308-06-1 tricobalt tetraoxide)

· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation** Based on available data, the classification criteria are not met.

· **Information on components:**		
CAS: 7647-01-0 hydrochloric acid		
Irritation of skin	OECD 404	(rabbit: burns)
Irritation of eyes	OECD 405	(rabbit: burns)
CAS: 16921-30-5 dipotassium hexachloroplatinate		
Irritation of skin	OECD 404	(rabbit: no irritation)
Irritation of eyes	OECD 405	(rabbit: burns)

· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **Information on components:**
Contains dipotassium hexachloroplatinate. May produce an allergic reaction.
Due to the high incidence of sensitisation in occupationally exposed persons, chloroplatinates, and among these especially potassium hexachloroplatinate, are rated as highly effective allergens for the respiratory tract, but also for the skin [GESTIS: Environmental Health Criteria, WHO, Geneva].

CAS: 7647-01-0 hydrochloric acid		
Sensitisation	OECD 406	(negative) (EPA OPP 81-6: Guinea pig maximisation test)

· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** May cause cancer by inhalation.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.

· **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 likely routes of exposure**
Exposure to hydrochloric acid is possible during occupational handling due to contact with the skin and inhalation of vapors.
The main intake pathway is considered to be via the respiratory tract.
Gastrointestinal tract: Specific kinetic studies are not available. They are considered not necessary because gastric juice already contains a high concentration of hydrochloric acid which is physiologically conditioned. Following ingestion, local effects are therefore of priority. [GESTIS]

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· **Additional toxicological information:**

CAS: 7647-01-0 hydrochloric acid

. (source: GESTIS)
Main toxic effects
Acute: Irritation and corrosion to the eyes, airways and skin, danger of severe damage to the eyes and lungs, following ingestion, concentration-dependent damage to the gastrointestinal tract
Chronic: Airway diseases, damage to the teeth, gastrointestinal disorders

Further Information:
The acute action of hydrochloric acid is based on the locally damaging effects on contacted tissues which are primarily dependent on the concentration. Following repeated contact with the skin, even diluted hydrochloric acid can cause skin damage (reddening, drying, fissures, dermatitis). The critical effect following repeated inhalative exposure is irritation to the respiratory tract.

CAS: 16921-30-5 dipotassium hexachloroplatinate

. (source: GESTIS)
Main toxic effects:
acute: irritant effect on mucous membranes and skin. Sensitization/allergic reaction of the airways/skin, in case of massive uptake, metabolic disorders, disturbances in the nervous system, renal dysfunction
chronic: allergic respiratory diseases, allergic/irritant skin diseases

· **11.2 Information on other hazards**
· **Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

· **Other information**
Other dangerous properties can not be excluded.
According to the information available to us, the chemical, physical and toxicological properties of the substances mentioned in Chapter 3 have not been thoroughly investigated.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

CAS: 7647-01-0 hydrochloric acid

EC50	20.5 mg/l/96h (bluegill) (OECD 203) (Merck)

CAS: 7791-13-1 cobalt dichloride hexahydrate

EC50	1.1–1.6 mg/l/48h (Daphnia magna)
EC50	0.5 mg/l/96h (Chlorella vulgaris)
IC50	0.33 mg/l/96 h (carp)

· **Other information:**
Toxic for fish:
HCl > 25 mg/l
· **12.2 Persistence and degradability** .
· **Other information:**
Mixture of inorganic compounds.
Methods for the determination of biodegradability are not applicable to inorganic substances.
· **12.3 Bioaccumulative potential** No further relevant information available.
· **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 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
· **12.7 Other adverse effects**
Forms corrosive mixtures with water even if diluted.
Harmful effect due to pH shift.
Avoid transfer into the environment.
· **Water hazard:**
Do not allow product to reach ground water, water bodies or sewage system.
Danger to drinking water if even small quantities leak into soil.

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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 07*	discarded inorganic chemicals consisting of or containing hazardous substances

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

SECTION 14: Transport information

· **14.1 UN number or ID number**	
· **ADR, IMDG, IATA**	UN1789
· **14.2 UN proper shipping name**	
· **ADR**	1789 HYDROCHLORIC ACID mixture
· **IMDG, IATA**	HYDROCHLORIC ACID mixture
· **14.3 Transport hazard class(es)**	
· **ADR**	

· **Class**	8 (C1) Corrosive substances.
· **Label**	8
· **IMDG, IATA**	

· **Class**	8 Corrosive substances.
· **Label**	8
· **14.4 Packing group**	
· **ADR, IMDG, IATA**	III
· **14.5 Environmental hazards:**	Not applicable.
· **14.6 Special precautions for user**	Warning: Corrosive substances.
· **Kemler Number:**	80
· **EMS Number:**	F-A,S-B
· **Segregation groups**	(SGG1) Acids
· **Stowage Category**	E
· **14.7 Maritime transport in bulk according to IMO instruments**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Limited quantities (LQ)**	5L
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **Transport category**	3
· **Tunnel restriction code**	E

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· **IMDG**
· **Limited quantities (LQ)** 5L
· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

*
SECTION 15: Regulatory information

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

· **Poisons Act UK**
· **Regulated explosives precursors**
The concentration of the substance is less than the stated mass percentage and should still be considered as reportable substance:

CAS: 7647-01-0	hydrochloric acid	10%

· **Regulated poisons**
None of the ingredients is listed.

· **Reportable explosives precursors**
None of the ingredients is listed.

· **Reportable poisons**
None of the ingredients is listed.

· **Regulation (EU) 2019/1148 on the marketing and use of explosives precursors** not regulated

· **Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals (PIC)**
None of the ingredients is listed.

· **Regulation (EC) No 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology:**
None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

CAS: 7647-01-0	hydrochloric acid	3

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

CAS: 7647-01-0	hydrochloric acid	3

· **Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:**
None of the ingredients is listed.

· **REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)**
None of the ingredients is listed.

· **LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)**
None of the ingredients is listed.

· **Substances of very high concern (SVHC) according to REACH, Article 57**
CAS 7791-13-1 Cobalt dichloride hexahydrate <0.1 %
This product does not contain any substances of very high concern above the legal concentration limit of ≥ 0.1% (w / w).
· **Substances of very high concern (SVHC) according to UK REACH**
This product does not contain any substances of very high concern above the legal concentration limit of ≥ 0.1% (w / w).

· **Directive 2012/18/EU (SEVESO III):**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **Information about limitation of use:**
Employment restrictions concerning young persons must be observed (94/33/EC).
Employment restrictions concerning pregnant and lactating women must be observed (92/85/EEC).

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

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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.

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

· **Relevant phrases**
H290 May be corrosive to metals.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H350i May cause cancer by inhalation.
H360F May damage fertility.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

· **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 relatif au transport international 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 (UK REACH)
PNEC: Predicted No-Effect Concentration (UK 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
Met. Corr.1: Corrosive to metals – Category 1
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Muta. 2: Germ cell mutagenicity – Category 2
Carc. 1B: Carcinogenicity – Category 1B
Repr. 1B: Reproductive toxicity – Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
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.
RTECS (Registry of Toxic Effects of Chemical Substances)
GESTIS- Stoffdatenbank (Substance Database, Germany)
ECHA: European CHemicals Agency http://echa.europa.eu

· *** Data compared to the previous version altered.**