

Printing date: 03.02.2021

\*

Version number 8

*Revision:*\_\_\_\_\_03.02.2021

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1.1 Produce	identifier
Trade nam	e: <u>Colour gold conc. FG 200, 10 g Au/l</u> <u>Farbgoldkonzentrat FG 200, 10 g Au/l</u>
	aber: = 1 g Au/100 ml = 10 g Au/1000 ml
	<b>nt identified uses of the substance or mixture and uses advised against</b> ed for private consumers.
Application	of the substance / the mixture Galvanic bath
	of the supplier of the safety data sheet rer/Supplier:
Heimerle + Dennigstra. D-75179 Pj	
Telefax + 49	9 (0) 7231 940-0 9 (0) 7231 940-2199 rle-meule.com
Further inf	ormation obtainable from:
Departmen	ASU - Bau/Arbeitssicherheit/Umwelt t BASU - Construction / Occupational Safety / Environment rle-meule.com
	Emergency Contact - IATA - 24h Emergency Contact - goods emergency number) 9 6970
	ncy telephone number:
Vergiftungs	LAND - GERMANY: -Informations-Zentrale Freiburg, ++49 761 19240 (24 h) Information Center) ITAIN:
National Po Members oj In England ITALY:	nisons Information Service +44 121 507 4123 The public seeking specific information on poisons should contact: and Wales: NHS 111 - dial 111 - In Scotland: NHS 24 - dial 111
-	
Tervisemeti LETTLANE	Mürgistusteabekeskuse 16662, (+342) 7914 794
LITAUEN -	<u>LIETUVOS RESPUBLIKA:</u> mų informacijos biuras +370 (85) 2362052

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

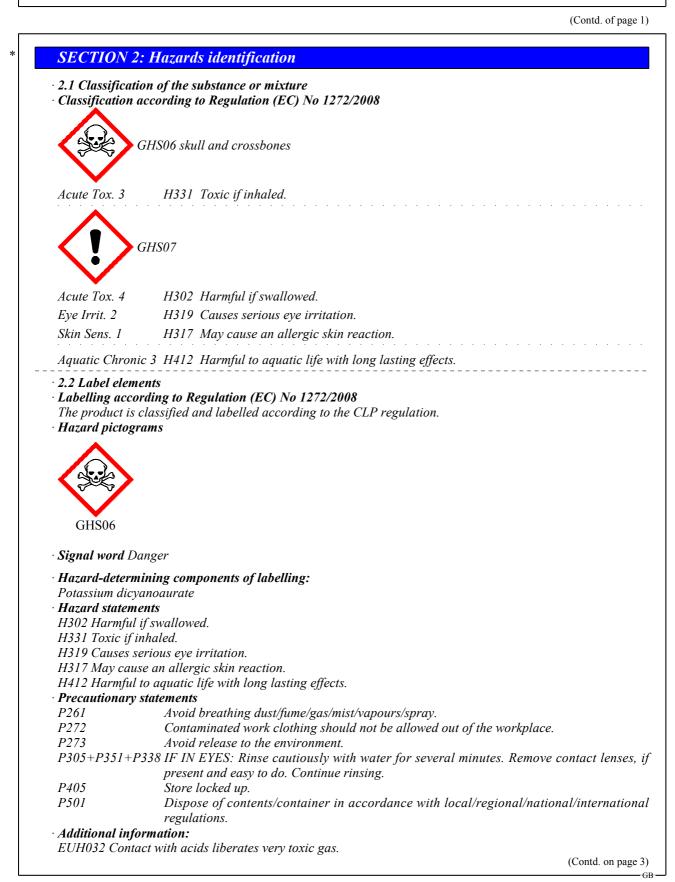
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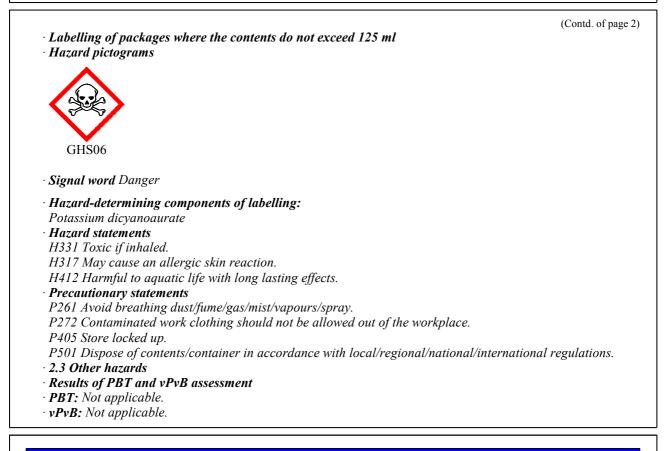
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## **SECTION 3: Composition/information on ingredients**

· 3.2 Chemical characterisation: Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components / Information on ingredients:				
CAS: 13967-50-5	Potassium dicyanoaurate	1.46%		
EINECS: 237-748-4	Acute Tox. 2, H300; Acute Tox. 2, H330			
Reg.nr.: 01-2120130777-52	Acute Tox. 2, H300; Acute Tox. 2, H330 Met. Corr.1, H290; Eye Dam. 1, H318			
	Aquatic Acute 1, H400; Aquatic Chronic 1, H410			
	(1) Skin Irrit. 2, H315; Skin Sens. 1, H317			
Additional information, Ec	we the wording of the listed har and physics refer to section 16			

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:
- Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- Personal protection for the First Aider.
- Take affected persons out of danger area and lay down.
- Involve doctor immediately after a accident or unwell
- After inhalation:

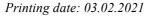
Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

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 After skin contact: Immediately wash with water and soap and rinse thoroughly. Immediately rinse with water. If skin irritation continues, consult a doctor.
 After eye contact:

*Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.* • *After swallowing:* 

Call for a doctor immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

A person vomiting while laying on their back should be turned onto their side.

- Rinse out mouth and then drink plenty of water.
- · Information for doctor: Cyanides poisoning
- $\cdot$  4.2 Most important symptoms and effects, both acute and delayed
- Cyanides poisoning Cyanosis

• **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:
- CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture Formation of very toxic gases is possible during heating or in case of fire. In case of fire, the following can be released: Hydrogen cyanide (HCN)
- 5.3 Advice for firefighters
- · Protective equipment:



Wear self-contained respiratory protective device.

## · Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## **SECTION 6:** Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Mount respiratory protective device. Wear protective equipment. Keep unprotected persons away. Use respiratory protective device against the effects of fumes/dust/aerosol. Only handle and refill product in closed systems.
6.2 Environmental precautions: Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system. Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.
6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. (Contd. on page 5)

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*Ensure adequate ventilation.* • **6.4 Reference to other sections** 

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

# **SECTION 7: Handling and storage**

#### · 7.1 Precautions for safe handling

Store in cool, dry place in tightly closed receptacles.

Keep receptacles tightly sealed.

*Ensure good ventilation/exhaustion at the workplace.* 

*he usual precautionary measures are to be adhered to when handling chemicals. Prevent formation of aerosols.* 

Wear suitable respiratory protective device when decanting larger quantities without extractor facilities. Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water. • Information about fire - and explosion protection: No special measures required.

- Information about fire and explosion protection. We special measures r
- 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:

• *Requirements to be met by storerooms and receptacles:* Observe official regulations on storing packagings. Observe official regulations on storing packagings. Prevent any seepage into the ground.

Treveni uny seepuge into the ground.

### · Information about storage in one common storage facility:

 $\overline{D}o$  not store together with acids.

Store away from foodstuffs.

• Further information about storage conditions: Keep container tightly sealed.

• Storage class: 6.1D

• 7.3 Specific end use(s) No further relevant information available.

# SECTION 8: Exposure controls/personal protection

• Additional information about design of technical facilities: No further data; see item 7.

# • Ingredients with limit values that require monitoring at the workplace: CAS: 13967-50-5 Potassium dicyanoaurate

WEL (Great Britain) Long-term value: 5 mg/m<sup>3</sup> as CN; Sk

MAK (Germany) Long-term value: 2E mg/m<sup>3</sup> als CN

### · Regulatory information

WEL (Great Britain): EH40/2020

MAK (Germany): MAK- und BAT-Liste

• Additional information: The lists valid during the making were used as basis.

- · 8.2 Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

*The usual precautionary measures are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed.* 

Immediately remove all soiled and contaminated clothing

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<sup>· 8.1</sup> Control parameters

<sup>-</sup> GB

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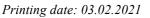
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(Contd. of page 5) Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols. Avoid contact with the eyes. Avoid contact with the eyes and skin. According to EC Directive 89/686/EEC · Respiratory protection: Use suitable respiratory protective device only when aerosol or mist is formed. Not necessary if room is well-ventilated. Short term filter device: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Beware: Filter masks provide protection for a short period of time only. They should only be used in exceptional cases, that is if a small amount of the substance has spilled out or in order to fight spillages and fire. according EN 14387 according to EN 143 • Recommended filter device for short term use: Combination filter B-P3 · Protection of hands: Alkaline resistant gloves *Check protective gloves prior to each use for their proper condition.* Protective gloves according to EN 374 To avoid skin problems reduce the wearing of gloves to the required minimum. Only use chemical-protective gloves with CE-labelling of category III. Sensibilisation by the components in the glove materials is possible. *Check the permeability prior to each anewed use of the glove.* The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation Prior to working with gloves the rubbing in with tanniferous skin-protecting agents for the avoidance of skin softening due to perspiration is recommended. · Material of gloves Chloroprene rubber, CR Recommended thickness of the material:  $\geq 0.65$  mm Nitrile rubber, NBR Recommended thickness of the material:  $\geq 0.65$  mm Penetration time of glove material The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed. The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 3). *Value for the permeation: Level*  $\leq 3$ • Not suitable are gloves made of the following materials: Leather gloves Strong material gloves (Contd. on page 7) GB

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· Eye protection:		(Contd. of p
Tightly sealed goggles		
according to EN 166		
• <b>Body protection:</b> Protective work clothin	ng	
<b>SECTION 9: Physical and chem</b>	ical properties	
• 9.1 Information on basic physical and o	chemical properties	
General Information		
· Appearance:		
Form: Colour:	Fluid Colourless	
· Odour:	Odourless	
• Odour threshold:	Not determined.	
· pH-value at 20°C (68°F):	9	
• Change in condition Melting point/freezing point:	Undetermined.	
Initial boiling point and boiling range		
· Flash point:	Not applicable.	
· Flammability (solid, gas):	Not applicable.	
• Decomposition temperature:	Not determined.	
• Auto-ignition temperature:	Product is not selfigniting.	
· Explosive properties:	Product does not present an explosion hazard.	
· Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
· Vapour pressure:	Not determined.	
• Density at 20°C (68°F):	1.01 g/cm <sup>3</sup> (8.43 lbs/gal)	
· Relative density	Not determined.	
· Vapour density	Not determined.	
· Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
water:	Fully miscible.	
· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Кіпетанс.		

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### **SECTION 10: Stability and reactivity**

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications. • 10.3 Possibility of hazardous reactions
- Contact with acids releases very toxic gases Reacts with acids, alkalis and oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- 10.5 Incompatible materials: Acids
- · 10.6 Hazardous decomposition products: Hydrogen cyanide (prussic acid)

## **SECTION 11: Toxicological information**

· 11.1 Information on toxicological effects

• Acute toxicity

Harmful if swallowed. Toxic if inhaled.

#### · LD/LC50 values relevant for classification:

#### ATE (Acute Toxicity Estimates)

Oral LD50 1986 mg/kg (Rat)

Inhalative LC50/4 h 3.42 mg/l

#### CAS: 13967-50-5 Potassium dicyanoaurate

Oral LD50 29 mg/kg (Rat)

Inhalative LC50/4 h 0.05 mg/l (ATE)

### · Primary irritant effect:

- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation
- Causes serious eye irritation.
- · Respiratory or skin sensitisation
- May cause an allergic skin reaction.
- Additional toxicological information:
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

### **SECTION 12: Ecological information**

· 12.1 Toxicity

- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Harmful to fish

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#### • Additional ecological information:

· General notes:

Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms

· 12.5 Results of PBT and vPvB assessment Not applicable.

• **PBT:** Not applicable.

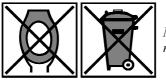
· vPvB: Not applicable.

· 12.6 Other adverse effects No further relevant information available.

### **SECTION 13: Disposal considerations**

• 13.1 Waste treatment methods

· Recommendation



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.

Waste disposal key:

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

European waste catalogue

There are no uniform EC regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste

11 00 00	WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY
11 01 00	wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)
11 01 98*	other wastes containing hazardous substances
HP6	Acute Toxicity
HP12	Release of an acute toxic gas
HP14	Ecotoxic

• Uncleaned packaging:

· Recommendation:

Disposal must be made according to official regulations.

Packaging which is uncleaned or soiled with product remains is to be treated like the product itself Packaging free of product remains is to be supplied refuse for recycling. Only if no adequate collecting

system is available, they may be disposed of through the domestic rubbish

• Recommended cleansing agents: Water, if necessary together with cleansing agents.

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14.1 UN-Number	
ADR, IMDG, IATA	UN1935
14.2 UN proper shipping name	
ADR	Void
IMDG, IATA	CYANIDE SOLUTION, N.O.S. (Potassium dicyanoau
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
6 6	
Class	6.1 Toxic substances.
Label	6.1
14.4 Packing group	
ADR, IMDĞ, IATA	III
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Warning: Toxic substances.
Hazard identification number (Kemler code):	60
EMS Number:	F-A,S-A
Segregation groups	Cyanides
Stowage Category Stowage Code	A SW2 Clear of living quarters.
Stowage Coae Segregation Code	SW2 Clear of tiving quarters. SG35 Stow "separated from" SGG1-acids
14.7 Transport in bulk according to Annex II of	
Marpol and the IBC Code	Not applicable.
Transport/Additional information:	**
ADR	
ADK Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: El
······································	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
Transport category	2
Tunnel restriction code	E
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: El
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
IATA	
Remarks:	24h emergency contact -
	(Dangerous goods emergency number)
	(Dangerous goods emergency number)



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· UN "Model Regulation":

Void

## **SECTION 15: Regulatory information**

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

COUNCIL DIRECTIVE 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 89/391/EEC)

DIRECTIVE 2012/18/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC

• TSCA (Toxic Substances Control Act)

All ingredients are listed.

### · GADSL - Global Automotive Declarable Substance List

None of the ingredients is listed.

#### · Directive 2012/18/EU

- · Named dangerous substances ANNEX I None of the ingredients is listed.
- $\cdot$  Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
- $\cdot$  Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· National regulations:

· Waterhazard class: .

- · Other regulations, limitations and prohibitive regulations -
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### · Reasons for revise

If necessary, this saftey data sheet can revised according to legal guidelines.

*Our current version for your reference is available on our website www.heimerle-meule.com* 

Relevant phrases
H290 May be corrosive to metals.
H300 Fatal if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H400 Very toxic to aquatic life.

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H410 Very toxic to aquatic life with long lasting effects.		
Department issuing SDS:		
Abteilung BASU - Bau/Arbeitssicherheit/Umwelt		
Department BASU - Construction / Occupational Safety / Environment		
sds@heimerle-meule.com		
Contact:		
Herr Thomas Knuth		
Knuth@heimerle-meule.com		
sds@heimerle-meule.com		
· Abbreviations and acronyms:		
<i>RID: Règlement international concernant le transport des marchandises dangereuses</i>	par chemin de fer (Regulations Concerning th	
International Transport of Dangerous Goods by Rail)		
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Associa	tion" (IATA)	
ICAO: International Civil Aviation Organisation		
ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (IC AwSV: Ordinance on facilities for handling water-polluting substances (German regula	AO)	
TRGS: Technical rules for hazardous substances (German regulation)	<i>ui0n)</i> .	
ADR: Accord européen sur le transport des marchandises dangereuses par Route (Eur	ropean Agreement concerning the Internation	
Carriage of Dangerous Goods by Road)		
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)		
LC50: Lethal concentration, 50 percent		
LD50: Lethal dose, 50 percent		
PBT: Persistent, Bioaccumulative and Toxic		
vPvB: very Persistent and very Bioaccumulative		
Met. Corr.1: Corrosive to metals – Category 1		
Acute Tox. 2: Acute toxicity - oral – Category 2 Acute Tox. 4: Acute toxicity - oral – Category 4		
Acute Tox. 3: Acute toxicity - inhalation – Category 3		
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		
Skin Sens. 1: Skin sensitisation – Category I		
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Catege Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard –	- Category 1	
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard –	- Category 3	
$\cdot$ * Data compared to the previous version altered.	0.7.	