



According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

## SAFETY DATA SHEET

# Micron Gold Plating Bath, JE250

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

*Trade name:* Micron Gold Plating Bath, JE250  
*Product no.:* KE26176  
*Unique formula identifier (UFI):* AS7V-Q3U4-9XM1-JACR

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

*Relevant identified uses of the substance or mixture:* Liquid for galvanic processes  
Restricted to professional users.  
*Uses advised against :* None known.

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

*Company and address:* **Aktiv Guld A/S**  
Vallensbækvej 46  
2625 Vallensbæk  
Denmark  
+45 43 66 20 00  
<https://www.aktivguld.com/>  
*E-mail:* [ag@aktivguld.com](mailto:ag@aktivguld.com)  
*Revision:* 03/09/2025  
*SDS Version:* 9.0  
*Date of previous version:* 08/08/2025 (9.0)

#### 1.4. Emergency telephone number

Contact the poison hotline: +45 82 12 12 12 (24 hour service)  
See section 4 "First aid measures".

### SECTION 2: HAZARDS IDENTIFICATION

Classified according to Regulation (EC) No. 1272/2008 (CLP).

#### 2.1. Classification of the substance or mixture

Acute Tox. 4; H302, Harmful if swallowed.  
Acute Tox. 3; H311, Toxic in contact with skin.  
Skin Sens. 1; H317, May cause an allergic skin reaction.

Eye Irrit. 2; H319, Causes serious eye irritation.  
 Carc. 1B; H350, May cause cancer.  
 Repr. 1B; H360, May damage fertility or the unborn child.  
 Aquatic Chronic 3; H412, Harmful to aquatic life with long lasting effects.

## 2.2. Label elements

*Hazard pictogram(s):*



*Signal word:*

Danger

*Hazard statement(s):*

Harmful if swallowed. (H302)  
 Toxic in contact with skin. (H311)  
 May cause an allergic skin reaction. (H317)  
 Causes serious eye irritation. (H319)  
 May cause cancer. (H350)  
 May damage fertility or the unborn child. (H360)  
 Harmful to aquatic life with long lasting effects.  
 (H412)

*Precautionary statement(s):*

*General:*

Not applicable.

*Prevention:*

Obtain special instructions before use. (P201)  
 Avoid breathing mist/vapour. (P261)  
 Wear face protection/protective gloves/protective  
 clothing. (P280)

*Response:*

Call a POISON CENTER/doctor if you feel unwell.  
 (P312)  
 Take off immediately all contaminated clothing and  
 wash it before reuse. (P361+P364)

*Storage:*

Not applicable.

*Disposal:*

Dispose of contents/container in accordance with  
 local regulation.  
 (P501)

*Hazardous substances:*

Potassium dicyanoaurate  
 Cobalt (II) citrate

*Additional labelling:*

Restricted to professional users.

UFI: AS7V-Q3U4-9XM1-JACR

## 2.3. Other hazards

*Additional warnings:*

This mixture/product does not contain any  
 substances known to fulfil the criteria for PBT and  
 vPvB classification.

This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Substances

Not applicable. This product is a mixture.

#### 3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Potassium dicyanoaurate	CAS No.: 13967-50-5 EC No.: 237-748-4 REACH: 01-2120130777-52-XXXX Index No.:	Max 1,5%	EUH032 Met. Corr. 1, H290 Acute Tox. 2, H300 Acute Tox. 1, H310 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Dam. 1, H318 Acute Tox. 2, H330 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	
Cobalt (II) citrate	CAS No.: 866-81-9 EC No.: 212-751-3 REACH: 01-2119552495-33-XXXX Index No.:	0,3%	Acute Tox. 4, H302 Skin Sens. 1, H317 Eye Dam. 1, H318 Resp. Sens. 1, H334 Muta. 2, H341 Carc. 1B, H350 Repr. 1B, H360 Aquatic Chronic 2, H411	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

#### Other information

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### SECTION 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures

*General information:*

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet.

	Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.
<i>Inhalation:</i>	Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.
<i>Skin contact:</i>	Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners. If skin irritation occurs: Get medical advice/attention.
<i>Eye contact:</i>	If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.
<i>Ingestion:</i>	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
<i>Burns:</i>	Not applicable.

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

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact. Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

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

IF exposed or concerned:

Get immediate medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

#### Information to medics

Bring this safety data sheet or the label from this product.

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### SECTION 5: FIREFIGHTING MEASURES

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#### 5.1. Extinguishing media

Not applicable.

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

Fire will result in dense smoke. Exposure to combustion products may harm your health.

Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Nitrogen oxides (NO<sub>x</sub>)  
Carbon oxides (CO / CO<sub>2</sub>)  
Some metal oxides

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

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the chemical emergency services on 72 85 20 00 (24 h service) in order to obtain further advice.

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## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Avoid direct contact with spilled substances.  
Ensure adequate ventilation, especially in confined areas.  
Contaminated areas may be slippery.

### **6.2. Environmental precautions**

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

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

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.  
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

### **6.4. Reference to other sections**

See section 13 "Disposal considerations" on handling of waste.  
See section 8 "Exposure controls/personal protection" for protective measures.

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## **SECTION 7: HANDLING AND STORAGE**

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### **7.1. Precautions for safe handling**

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.  
Avoid direct contact with the product.  
Avoid contact during pregnancy and while nursing.  
Smoking, drinking and consumption of food is not allowed in the work area.  
See section 8 "Exposure controls/personal protection" for information on personal protection.

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

Store locked up. A sign warning of toxic materials shall be affixed the room and cupboard containing the product(s).  
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

<i>Recommended storage material:</i>	Always store in containers of the same material as the original container.
<i>Storage conditions:</i>	No specific requirements.
<i>Incompatible materials:</i>	Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

### 7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Potassium dicyanoaurate

Long term exposure limit (8 hours) (mg/m<sup>3</sup>): 1 (beregnet som CN)

Short term exposure limit (15 minutes) (mg/m<sup>3</sup>): 5 (beregnet som CN)

Annotations:

E = Substance has an EC limit.

H = The substance can be absorbed through the skin.

Statutory order 1619 on exposure limits for substances and mixtures (19/12/2024)

#### DNEL

Potassium dicyanoaurate

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	100 µg/kg bw/day
Long term – Systemic effects - Workers	Inhalation	71 µg/m <sup>3</sup>

#### PNEC

Potassium dicyanoaurate

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		200 ng/L
Freshwater sediment		330 µg/kg
Intermittent release (freshwater)		2 µg/L
Marine water		20 ng/L
Marine water sediment		33 µg/kg
Sewage treatment plant		6 mg/L
Soil		67 µg/kg

### 8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

<i>General recommendations:</i>	Smoking, drinking and consumption of food is not allowed in the work area.
<i>Exposure scenarios:</i>	There are no exposure scenarios implemented for this product.
<i>Exposure limits:</i>	Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.
<i>Appropriate technical measures:</i>	Do not recirculate outlet air that contain the substances. The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked. Apply standard precautions during use of the product. Avoid inhalation of vapours.
<i>Hygiene measures:</i>	In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.
<i>Measures to avoid environmental exposure:</i>	Keep damming materials near the workplace. If possible, collect spillage during work.


**Individual protection measures, such as personal protective equipment**

*Generally:* Use only CE marked protective equipment.

*Respiratory Equipment:*


Type	Class	Colour	Standards	
Respiratory protection is not needed in the event of adequate ventilation.				

*Skin protection:*


Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	

*Hand protection:*

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0,3	> 480	EN374-2, EN16523-1, EN388	

Eye protection:

Type	Standards	
Face shield alternatively safety glasses with side shields.	EN166	

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<i>Physical state:</i>	Liquid
<i>Colour:</i>	Red, Purple
<i>Odour / Odour threshold:</i>	None
<i>pH:</i>	3,8 - 4,2
<i>Density (g/cm<sup>3</sup>):</i>	1.08 (20 °C)
<i>Kinematic viscosity:</i>	No data available.
<i>Particle characteristics:</i>	Does not apply to liquids.

### Phase changes

<i>Melting point/Freezing point (°C):</i>	No data available.
<i>Softening point/range (°C):</i>	Does not apply to liquids.
<i>Boiling point (°C):</i>	105
<i>Vapour pressure:</i>	No data available.
<i>Relative vapour density:</i>	No data available.
<i>Decomposition temperature (°C):</i>	No data available.

### Data on fire and explosion hazards

<i>Flash point (°C):</i>	No data available.
<i>Flammability (°C):</i>	No data available.
<i>Auto-ignition temperature (°C):</i>	No data available.
<i>Lower and upper explosion limit (% v/v):</i>	No data available.

### Solubility

<i>Solubility in water:</i>	Very soluble
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*n*-octanol/water coefficient (*LogK<sub>ow</sub>*): No data available.

*Solubility in fat (g/L)*: No data available.

## 9.2. Other information

*Other physical and chemical parameters*: No data available.

*Oxidizing properties*: No data available.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: TOXICOLOGICAL INFORMATION

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

#### Acute toxicity

Harmful if swallowed.

Toxic in contact with skin.

#### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

#### Serious eye damage/irritation

Causes serious eye irritation.

#### Respiratory sensitisation

Based on available data, the classification criteria are not met.

#### Skin sensitisation

May cause an allergic skin reaction.

#### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

### **Carcinogenicity**

May cause cancer.

### **Reproductive toxicity**

May damage fertility or the unborn child.

### **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.

## **11.2. Information on other hazards**

### **Long term effects**

**Carcinogenic effects:** This product contains substances considered or proven to be carcinogenic. The carcinogenic effects may be triggered subsequent to exposure through inhalation, skin contact or ingestion.

**Reproductive toxicity:** This product contains teratogenic substances, which may produce anomalies and/or developmental defects to the human offspring. Adverse effects include: death, growth retardation, congenital disorders, delayed mental development, and functional disorders. This product contains reprotoxic substances, which may harm the reproductive capacity. Adverse effects include: sterility, effects on the sexual function, lowered effective fertility and dysfunctional menstrual cycle.

**Irritation effects:** This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

### **Endocrine disrupting properties**

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

### **Other information**

Cobalt (II) citrate has been classified by IARC as a group 2B carcinogen.

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## **SECTION 12: ECOLOGICAL INFORMATION**

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### **12.1. Toxicity**

Harmful to aquatic life with long lasting effects.

### **12.2. Persistence and degradability**

Based on available data, the classification criteria are not met.

### **12.3. Bioaccumulative potential**

Based on available data, the classification criteria are not met.

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

No data available.

### 12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

### 12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

### 12.7. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste. (\*)

HP 6 - Acute toxicity

HP 7 - Carcinogenic

Dispose of contents/container to an approved waste disposal plant.

Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

*EWC code:*

11

WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY

11 01

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 dangerous substances

### Specific labelling

Not applicable.




### Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

## SECTION 14: TRANSPORT INFORMATION

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other informat ion:
ADR	UN3287	TOXIC LIQUID, INORGANIC, N.O.S. (Potassium dicyanoaurate,	Transport hazard class: 6.1 Label: 6.1	III	No	Limited quantitie

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other informat ion:
		Cobalt (II) citrate)	Classification code: T4 			s: 5 L Tunnel restrictio n code: (E) See below for additiona l informati on.
IMDG	UN3287	TOXIC LIQUID, INORGANIC, N.O.S. (Potassium dicyanoaurate, Cobalt (II) citrate)	Transport hazard class: 6.1 Label: 6.1 Classification code: T4 	III	No	Limited quantitie s: 5 L EmS: F-A S-A See below for additiona l informati on.
IATA	UN3287	TOXIC LIQUID, INORGANIC, N.O.S. (Potassium dicyanoaurate, Cobalt (II) citrate)	Transport hazard class: 6.1 Label: 6.1 Classification code: T4 	III	No	See below for additiona l informati on.

\* Packing group

\*\* Environmental hazards

### Additional information

This product is within scope of the regulations of transport of dangerous goods.

ADR / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Maritime transport in bulk according to IMO instruments

No data available.

## SECTION 15: REGULATORY INFORMATION

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

*Restrictions for application:*

Restricted to professional users.  
People under the age of 18 shall not be exposed to this product.  
Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

*Demands for specific education:*

No specific requirements.

*SEVESO - Categories / dangerous substances:*

Not applicable.

*Additional information:*

Not applicable.

*Sources:*

The Danish Working Environment Authority's executive order no. 1049 of 30 May 2021 on young people's work. Based on Council Directive 94/33 / EC of 22 June 1994 on the protection of young people at work.  
Pregnant workers and workers who are breastfeeding (AT Guide A.1.8-6, amended 2024).  
Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.  
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 (CLP).  
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).

### 15.2. Chemical safety assessment

No

## SECTION 16: OTHER INFORMATION

### Full text of H-phrases as mentioned in section 3

EUH032, Contact with acids liberates very toxic gas.  
H290, May be corrosive to metals.  
H300, Fatal if swallowed.  
H302, Harmful if swallowed.  
H310, Fatal in contact with skin.

H315, Causes skin irritation.  
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.  
H341, Suspected of causing genetic defects.  
H350, May cause cancer.  
H360, May damage fertility or the unborn child.  
H400, Very toxic to aquatic life.  
H410, Very toxic to aquatic life with long lasting effects.  
H411, Toxic to aquatic life with long lasting effects.

### Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS = Chemical Abstracts Service  
CE = Conformité Européenne (European conformity)  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
CSA = Chemical Safety Assessment  
CSR = Chemical Safety Report  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EINECS = European Inventory of Existing Commercial chemical Substances  
ES = Exposure Scenario  
EUH statement = CLP-specific Hazard statement  
EuPCS = European Product Categorisation System  
EWC = European Waste Catalogue  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
GWP = Global warming potential  
IARC = International Agency for Research on Cancer (IARC)  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
OECD = Organisation for Economic Co-operation and Development  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SCL = A specific concentration limit

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

### **Additional information**

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP).

The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP).

### **The safety data sheet is validated by**

Aktiv Guld A/S

### **Other**

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product.

Information in this safety data sheet cannot be used as a product specification.

Country-language: DK-en