

SAFETY DATA SHEET

METO

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

1.1. Product identifier

Trade name

METO

Product no.

1303

Unique formula identifier (UFI)

CC00-C0PA-A00S-8D1S

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

Relevant identified uses of the substance or mixture

Cleaning product

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Trion Tensid AB

Svederusgatan 1-3

SE-75450 Uppsala

Sweden

+46 18 15 61 90

www.trion.se

Contact person

William Stomilovic

E-mail

info@trion.se

Revision

10/01/2023

SDS Version

5.0

Date of previous version

30/09/2022 (4.0)

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin Corr. 1; H314, Causes severe skin burns and eye damage.

Eye Dam. 1; H318, Causes serious eye damage.

2.2. Label elements

Hazard pictogram(s)





Signal word

Danger

Hazard statement(s)

Causes severe skin burns and eye damage. (H314)

Safety statement(s)

General

Prevention

Do not breathe vapour/mist. (P260)

Wear eye protection/protective gloves/protective clothing. (P280)

Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . (P303+P361+P353)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)

Immediately call a POISON CENTER/doctor. (P310)

Storage

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▼ Disposal

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

▼ Hazardous substances

Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts

phosphoric acid

hydrogen chloride

ammonium bifluoride

▼ Additional labelling

UFI: CC00-C0PA-A00S-8D1S

2.3. Other hazards

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

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) 2018/605.

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
Benzenesulfonic acid, C10- 13-alkyl derivs., sodium salts	CAS No.: 68411-30-3 EC No.: 270-115-0 UK-REACH: Index No.:	15-25%	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412	
phosphoric acid	CAS No.: 7664-38-2 EC No.: 231-633-2 UK-REACH: Index No.: 015-011-00-6	<10%	Skin Corr. 1B, H314 (SCL: 25.00 %)	[1]



hydrogen chloride	CAS No.: 7647-01-0	<2%	Skin Corr. 1A, H314 Acute Tox. 3, H331	[1]
	EC No.: 231-595-7		·	
	UK-REACH:			
	Index No.: 017-002-01-X			
ammonium bifluoride	CAS No.: 1341-49-7	<0,5%	Acute Tox. 3, H301	
	EC No.: 215-676-4		Skin Corr. 1B, H314	
	UK-REACH:			
	Index No.: 009-009-00-4			

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

[1] European occupational exposure limit.

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.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Flush exposed area with water for a long time - at least 30 minutes. It may be necessary to flush for several hours. Use a comfortable water temperature (20-30 °C). Contact Poison Information/doctor/hospital for further advice on follow-up and treatment.

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.

Eye contact

Upon irritation of the eye: Remove contact lenses. Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

Ingestion

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit returning mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns

Not applicable.

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

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

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

IF exposed or concerned:

Get immediate medical advice/attention.



Information to medics

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist. Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

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:

Halogenated compounds

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid direct contact with the product.

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

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

4 - 25 Celcius

Incompatible materials

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

phosphoric acid

Long term exposure limit (8 hours) (mg/m³): 1

Short term exposure limit (15 minutes) (mg/m³): 2

hydrogen chloride

Long term exposure limit (8 hours) (ppm): 1

Long term exposure limit (8 hours) (mg/m³): 2

Short term exposure limit (15 minutes) (ppm): 5

Short term exposure limit (15 minutes) (mg/m³): 8

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002. EH40/2005 Workplace exposure limits (Fourth Edition 2020).

▼ DNEL

ammonium bifluoride

Duration	Route of exposure	DNEL
Long term – Systemic effects - Workers	Inhalation	2,3 mg/m3
phosphoric acid		
Duration	Route of exposure	DNEL
Long term – Local effects - General population	Inhalation	0,36 mg/m3
Long term – Local effects - Workers	Inhalation	1 mg/m3
Long term – Systemic effects - General population	Inhalation	4,57 mg/m3
Long term – Systemic effects - Workers	Inhalation	10,7 mg/m3
Short term – Local effects - Workers	Inhalation	2 mg/m3
Long term – Systemic effects - General population	Oral	0,1 mg/kg/day

▼ PNEC

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ammonium bifluoride

Route of exposure	Duration of Exposure	PNEC
Freshwater	Single	1,3 mg/L
Sewage treatment plant	Single	76 mg/L
Soil	Single	22 mg/kg

8.2. ▼Exposure controls

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

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.



Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

▼ Appropriate technical measures

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.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

8.3. Individual protection measures, such as personal protective equipment

Generally

Wash contaminated clothing before reuse.

Use only UKCA marked protective equipment.

Respiratory Equipment

147 L 12 12	_	CI	6.1	C	
Work situation	Type	Class	Colour	Standards	
	Respiratory protection is not needed in the event of adequate ventilation	-	-	-	
In the case of insufficient ventilation	Combination filter A2B2E2K2-P3		Brown/Gray/Yellow/Green/White	EN14387	

Skin protection

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

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0,4	>480	EN374-2	

Eye protection

Type	Standards	
Wear safety glasses with side shields.	EN166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties Physical state



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Liquid
   Colour
      Brown
   Odour / Odour threshold
      Characteristic
   рΗ
   Density (g/cm³)
      1.05
   Kinematic viscosity
      Testing not relevant or not possible due to the nature of the product.
   Particle characteristics
      Does not apply to liquids.
Phase changes
   Melting point/Freezing point (°C)
      Testing not relevant or not possible due to the nature of the product.
   Softening point/range (waxes and pastes) (°C)
      Does not apply to liquids.
   Boiling point (°C)
      Testing not relevant or not possible due to the nature of the product.
   Vapour pressure
   Relative vapour density
      Testing not relevant or not possible due to the nature of the product.
   Decomposition temperature (°C)
      Testing not relevant or not possible due to the nature of the product.
Data on fire and explosion hazards
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Testing not relevant or not possible due to the nature of the product.

Flash point (°C)

Not applicable - estimated flash point > 200 °C

Auto-Ignition (°C)

Not applicable - estimated flash point > 200 °C

Flammability (°C)

Not applicable - estimated flash point > 200 °C

Lower and upper explosion limit (% v/v)

Not applicable - estimated flash point > 200 °C

Solubility

Solubility in water

Completely soluble

n-octanol/water coefficient

Testing not relevant or not possible due to the nature of the product.

Solubility in fat (q/L)

Testing not relevant or not possible due to the nature of the product.

9.2. Other information

Other physical and chemical parameters

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

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

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

▼ Acute toxicity

Product/substance	Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts
Test method	OECD 401
Species	Rat
Route of exposure	Oral
Test	LD50
Result	1980 mg/kg
Other information	
Product/substance	phosphoric acid
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	300-2000 mg/kg
Other information	
Product/substance	hydrogen chloride
Test method	
Species	Rabbit
Route of exposure	Oral
Test	LD50
Result	900 mg/kg ·
Other information	
Product/substance	hydrogen chloride
Test method	
Species	Rabbit
Route of exposure	Dermal
Test	LD50
Result	>5010 mg/kg ·
Other information	

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Product/substance	hydrogen chloride
Test method	
Species	Rat
Route of exposure	Inhalation
Test	LC50
Result	3 124 ppm/1h ·
Other information	
Product/substance	ammonium bifluoride
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	130 mg/kg ·
Other information	

▼ Skin corrosion/irritation

Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts
OECD 404
Rabbit
Adverse effect observed (Irritating)
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts
OECD 405
Rabbit
Adverse effect observed (Causes serious eye damage)

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory sensitisation

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

▼ Skin sensitisation

Product/substance	Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts
Test method	OECD 406

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Species	Guinea pig
Result	No adverse effect observed (not sensitising)
Other information	

▼ Germ cell mutagenicity

Product/substance	Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts
Test method	
Species	
Conclusion	No adverse effect observed
Other information	

▼ Carcinogenicity

Product/substance	Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts
Test method	
Species	
Route of exposure	
Target organ	
Duration	
Test	
Result	
Conclusion	No adverse effect observed
Other information	

▼ Reproductive toxicity

Product/substance	Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts
Test method	
Species	
Duration	
Test	
Result	
Conclusion	No adverse effect observed
Other information	

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.

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11.2. Information on other hazards

▼ Long term effects

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

Endocrine disrupting properties

None known.

Other information

hydrogen chloride has been classified by IARC as a group 3 carcinogen.

SECTION 12: Ecological information

12.1. ▼Toxicity

Product/substance	phosphoric acid
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	3,0 - 3,25 mg/L
Other information	
Product/substance	phosphoric acid
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	>100 mg/L
Other information	
Product/substance	phosphoric acid
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	>100 mg/L
Other information	
Product/substance	hydrogen chloride
Test method	

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Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	282 mg/L ·
Other information	
Product/substance	ammonium bifluoride
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	237 mg/L ·
Other information	
Product/substance	ammonium bifluoride
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	10-100 mg/L ·
Other information	

12.2. ▼Persistence and degradability

Product/substance	phosphoric acid
Biodegradable	Yes
Test method	
Result	
Product/substance	hydrogen chloride
Biodegradable	Yes
Test method	
Result	
Product/substance	ammonium bifluoride
Biodegradable	Yes
Test method	

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12.3. ▼ Bioaccumulative potential

Product/substance	phosphoric acid
Test method	
Potential bioaccumulation	No
LogPow	No data available.
BCF	No data available.
Other information	
Product/substance	hydrogen chloride
Test method	
Potential bioaccumulation	No
LogPow	No data available.
BCF	No data available.
Other information	
Product/substance	ammonium bifluoride
Test method	
Potential bioaccumulation	No
LogPow	No data available.
BCF	No data available.
Other information	

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

None known.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 8 - Corrosive

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

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

20 01

14* Acids

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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 information
ADR	UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (ammonium bifluoride, hydrogen chloride)	Class: 8 Labels: 8 Classification code: C1	III	No	Limited quantities: 5 L Tunnel restriction code: (E) See below for additional information.
IMDG	UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (ammonium bifluoride, hydrogen chloride)	Class: 8 Labels: 8 Classification code: C1	III	No	Limited quantities: 5 L EmS: F-A S-B See below for additional information.
IATA	UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (ammonium bifluoride, hydrogen chloride)	Class: 8 Labels: 8 Classification code: C1	III	No	See below for additional information.

^{*} Packing group

Additional information

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.

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

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.

Demands for specific education

METO

^{**} Environmental hazards



No specific requirements.

SEVESO - Categories / dangerous substances

hydrogen chloride

Regulation on drug precursors

hydrogen chloride is included (Category 3)

Additional information

Not applicable.

Sources

The Management of Health and Safety at Work Regulations 1999.

Regulation (EC) No 648/2004 on detergents as retained and amended in UK law.

Control of Major Accident Hazards (COMAH) Regulations 2015.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

The Controlled Drugs (Drug Precursors) Regulations 2008.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H301, Toxic if swallowed.

H302, Harmful if swallowed.

H314, Causes severe skin burns and eye damage.

H315, Causes skin irritation.

H318, Causes serious eye damage.

H331, Toxic if inhaled.

H412, Harmful 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

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

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

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 substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The classification of the substance/mixture in regard of skin corrosion and serious eye damage is based on the pH-criterion given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

▼ The safety data sheet is validated by

RO

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue 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: GB-en