

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Trade name : HD 410 Hand disinfection
Revision : 05.10.2014
Date of print : 05.10.2014

Version (Revision) : 2.0.0 (1.0.0)

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

1.1 Product identifier

HD 410 Hand disinfection

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

Relevant identified uses

HD 410 is an alcohol-based rub-in preparation for hygienic and surgical hand disinfection.

Product categories [PC]

PC0 - Other

Disinfectants

Uses advised against

None, if handled according to order.

Remark

The product is intended for professional use.

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

orochemie GmbH + Co. KG

Street : Max-Planck-Straße 27

Postal code/city : 70806 Kornwestheim

Telephone : +49 7154 1308-0

Telefax : +49 7154 1308-40

Information contact : DÜRR DENTAL AG, Höpfigheimer Straße 17, 74321 Bietigheim-Bissingen, Germany

Tel: +49 7142 705-0, Fax: +49 7142 705-500, info@duerr.de

in Great Britain/Ireland:

DÜRR DENTAL [Products] UK Ltd., 14 Linnell Way - Telford Way Industrial Estate, Kettering Northants NN16 8PS, United Kingdom

Tel: +44 1536 526740, Fax.: +44 1536 526749, info@duerruk.com

1.4 Emergency telephone number

INT: +49 6132 84463 (24 h/7 d)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Eye Irrit. 2 ; H319 - Serious eye damage/eye irritation : Category 2A ; Causes serious eye irritation.

Flam. Liq. 2 ; H225 - Flammable liquids : Category 2 ; Highly flammable liquid and vapour.

STOT SE 3 ; H336 - Specific target organ toxicity (single exposure) : Category 3 ; May cause drowsiness or dizziness.

Classification procedure

The classification was carried out according to the calculation method of Regulation No. (EC) 1272/2008 [CLP] as well as in-house investigations.

Classification according to Directive 1999/45/EC

Flammable. · Irritating to eyes. · Vapours may cause drowsiness and dizziness.

R 10 · Xi ; R 36 · R 67

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

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Flame (GHS02) · Exclamation mark (GHS07)

Signal word

Danger

Hazard statements

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container to hazardous or special waste collection point.

Labelling (1999/45/EC)

Hazard symbols and hazard statements of dangerous substances and preparations



Xi ; Irritant

R-phrases

10 Flammable.
36 Irritating to eyes.
67 Vapours may cause drowsiness and dizziness.

S-phrases

46 If swallowed, seek medical advice immediately and show this container or label.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice .
16 Keep away from sources of ignition - No smoking.

2.3 Other hazards

None

SECTION 3: Composition/ information on ingredients

3.2 Mixtures

Description

HD 410 contains alcohols and auxiliary agents in aqueous solution.

Hazardous ingredients

PROPAN-2-OL ; REACH registration No. : 01-2119457558-25 ; EC No : 200-661-7; CAS No. : 67-63-0

Weight fraction : 45 - 50 %
Classification 67/548/EEC : F ; R11 Xi ; R36 R67
Classification 1272/2008 [CLP] : Flam. Liq. 2 ; H225 Eye Irrit. 2 ; H319 STOT SE 3 ; H336

1-PROPANOL ; REACH registration No. : 01-2119486761-29 ; EC No : 200-746-9; CAS No. : 71-23-8

Weight fraction : 25 - 30 %
Classification 67/548/EEC : F ; R11 Xi ; R41 R67
Classification 1272/2008 [CLP] : Flam. Liq. 2 ; H225 Eye Dam. 1 ; H318 STOT SE 3 ; H336

Additional information

Full text of R-, H- and EUH-phrases: see section 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice.

After inhalation

When in doubt or if symptoms are observed, get medical advice. Provide fresh air. In case of respiratory tract irritation, consult a physician.

In case of skin contact

When in doubt or if symptoms are observed, get medical advice.

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

If swallowed, immediately drink: Water Never give anything by mouth to an unconscious person or a person with cramps. Do not induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂). Extinguishing powder. Water spray. Water mist.

Unsuitable extinguishing media

High power water jet.

5.2 Special hazards arising from the substance or mixture

None known.

Hazardous combustion products

Vapours can form explosive mixtures with air.

5.3 Advice for firefighters

Cool endangered containers with water in case of fire.

Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protection equipment. Remove all sources of ignition. When using do not smoke. See protective measures under point 7 and 8.

For non-emergency personnel

Use personal protection equipment. See protective measures under point 7 and 8.

For emergency responders

Personal protection equipment

See protective measures under point 7 and 8.

6.2 Environmental precautions

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Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3 Methods and material for containment and cleaning up

For cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal.

Other information

Treat the recovered material as prescribed in the section on waste disposal.

6.4 Reference to other sections

None

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep/Store only in original container. Please note safety instructions and directions for use on the drum. Open and handle container with care. Keep away from sources of ignition. - No smoking. Provide adequate ventilation. Do not breathe vapour/aerosol.

Protective measures

Fire prevent measures

Usual measures for fire prevention. Keep away from sources of ignition. - No smoking.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container. Keep container tightly closed. Keep in a cool, well-ventilated place. Do not store in temperatures below 5 °C.

Hints on joint storage

Do not store together with oxidizing, self-igniting substances and highly flammable solid substances. Store the foodstuffs separately.

7.3 Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

PROPAN-2-OL ; CAS No. : 67-63-0

Limit value type (country of origin) : TLV/STEL (GB)

Limit value : 500 ppm / 1250 mg/m³

Limit value type (country of origin) : TLV/TWA (GB)

Limit value : 400 ppm / 999 mg/m³

1-PROPANOL ; CAS No. : 71-23-8

Limit value type (country of origin) : TLV/STEL (GB)

Limit value : 250 ppm / 625 mg/m³

DNEL/DMEL and PNEC values

There are no data available on the preparation itself.

DNEL/DMEL

Limit value type : DNEL/DMEL (DNEL Consumer, Systemic) (1-PROPANOL ; CAS No. : 71-23-8)

Exposure route : Inhalation

Exposure frequency : Short-term (acute)

Limit value : 1036 mg/m³

Limit value type : DNEL/DMEL (DNEL Consumer, Systemic) (PROPAN-2-OL ; CAS No. : 67-63-0)

Exposure route : Dermal

Exposure frequency : Long-term (repeated)

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Limit value : 319 mg/kg
Safety factor : 24 h
Limit value type : DNEL/DMEL (DNEL Consumer, Systemic) (PROPAN-2-OL ; CAS No. : 67-63-0)
Exposure route : Inhalation
Exposure frequency : Long-term (repeated)
Limit value : 89 mg/m³
Limit value type : DNEL/DMEL (DNEL Consumer, Systemic) (1-PROPANOL ; CAS No. : 71-23-8)
Exposure route : Dermal
Exposure frequency : Long-term (repeated)
Limit value : 81 mg/kg
Limit value type : DNEL/DMEL (DNEL Consumer, Systemic) (1-PROPANOL ; CAS No. : 71-23-8)
Exposure route : Inhalation
Exposure frequency : Long-term (repeated)
Limit value : 80 mg/m³
Limit value type : DNEL/DMEL (DNEL Consumer, Systemic) (PROPAN-2-OL ; CAS No. : 67-63-0)
Exposure route : Oral
Exposure frequency : Long-term (repeated)
Limit value : 26 mg/kg
Safety factor : 24 h
Limit value type : DNEL/DMEL (DNEL Consumer, Systemic) (1-PROPANOL ; CAS No. : 71-23-8)
Exposure route : Oral
Exposure frequency : Long-term (repeated)
Limit value : 61 mg/kg
Limit value type : DNEL/DMEL (Worker, Systemic) (1-PROPANOL ; CAS No. : 71-23-8)
Exposure route : Inhalation
Exposure frequency : Short-term (acute)
Limit value : 1723 mg/m³
Limit value type : DNEL/DMEL (Worker, Systemic) (PROPAN-2-OL ; CAS No. : 67-63-0)
Exposure route : Dermal
Exposure frequency : Long-term (repeated)
Limit value : 888 mg/kg
Safety factor : 24 h
Limit value type : DNEL/DMEL (Worker, Systemic) (PROPAN-2-OL ; CAS No. : 67-63-0)
Exposure route : Inhalation
Exposure frequency : Long-term (repeated)
Limit value : 500 mg/m³
Limit value type : DNEL/DMEL (Worker, Systemic) (1-PROPANOL ; CAS No. : 71-23-8)
Exposure route : Dermal
Exposure frequency : Long-term (repeated)
Limit value : 136 mg/kg
Limit value type : DNEL/DMEL (Worker, Systemic) (1-PROPANOL ; CAS No. : 71-23-8)
Exposure route : Inhalation
Exposure frequency : Long-term (repeated)
Limit value : 268 mg/m³

PNEC

Limit value type : PNEC aquatic, freshwater (1-PROPANOL ; CAS No. : 71-23-8)
Limit value : 10 mg/l
Limit value type : PNEC aquatic, freshwater (PROPAN-2-OL ; CAS No. : 67-63-0)
Limit value : 140,9 mg/l
Limit value type : PNEC aquatic, marine water (PROPAN-2-OL ; CAS No. : 67-63-0)
Limit value : 140,9 mg/l
Limit value type : PNEC aquatic, marine water (1-PROPANOL ; CAS No. : 71-23-8)
Limit value : 1 mg/l
Limit value type : PNEC (Industrial) (1-PROPANOL ; CAS No. : 71-23-8)
Exposure route : Soil
Limit value : 2,2 mg/kg

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Limit value type :	PNEC (Industrial) (PROPAN-2-OL ; CAS No. : 67-63-0)
Exposure route :	Soil
Limit value :	28 mg/kg
Limit value type :	PNEC sediment, freshwater (PROPAN-2-OL ; CAS No. : 67-63-0)
Limit value :	552 mg/kg
Limit value type :	PNEC sediment, freshwater (1-PROPANOL ; CAS No. : 71-23-8)
Limit value :	22,8 mg/kg
Limit value type :	PNEC sediment, marine water (1-PROPANOL ; CAS No. : 71-23-8)
Limit value :	2,28 mg/kg
Limit value type :	PNEC Secondary Poisoning (PROPAN-2-OL ; CAS No. : 67-63-0)
Limit value :	160 mg/kg
Limit value type :	PNEC sewage treatment plant (STP) (PROPAN-2-OL ; CAS No. : 67-63-0)
Limit value :	2251 mg/l

8.2 Exposure controls

Personal protection equipment

Eye / face protection

No special measures are necessary.

Skin protection

Hand protection

Hand protection is not required

Body protection

Body protection: not applicable.

Respiratory protection

Usually no personal respiratory protection necessary.

General health and safety measures

Keep away from food, drink and animal feeding stuffs. Separate storage of work clothes. When using do not eat, drink, smoke, sniff.

Occupational exposure controls

Technical measures to prevent exposure

Provide adequate ventilation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : light blue

Odour : aromatic

Safety relevant basis data

Melting point / melting range :	(1013 hPa)	No data available
Boiling temperature / boiling range:	(1013 hPa)	No data available
Decomposition temperature :	(1013 hPa)	No data available
Flash point :		22 °C
Ignition temperature :		360 °C
Lower explosion limit :		1 Vol-%
Upper explosion limit :		13,5 Vol-%
Vapour pressure :	(50 °C)	160 hPa
Density :	(20 °C)	0,84 - 0,88 g/cm ³
Solvent separation test :	(20 °C)	< 3 %
Water solubility :	(20 °C)	100 Wt %
pH value :		5,5 - 7
log P O/W :		No data available

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Flow time : (20 °C) < 20 s DIN-cup 4 mm
Odour threshold : No data available
Oxidising liquids : Not applicable.
Explosive properties : Not applicable.
Corrosive to metals : Not corrosive to metals.

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

None, if handled according to order.

10.2 Chemical stability

Stable under recommended storage and handling conditions (see section 7).

10.3 Possibility of hazardous reactions

Vapours can form explosive mixtures with air.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

Oxidising agent.

10.6 Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity

Parameter : LD50
Exposure route : Oral
Species : Rat
Effective dose : > 2000 mg/kg
Methode : OECD 423

Practical experience/human evidence

Patch testing: The product does not have any skin irritating or sensitizing properties. The product has a slightly irritating effect on the eyes.

Acute dermal toxicity

Parameter : LD50
Exposure route : Dermal
Species : Rat
Effective dose : > 2000 mg/kg
Methode : OECD 402

Irritant and corrosive effects

Not an irritant. Methode : Human Skin Model (HSM) test. Rabbit's eye: mild irritation. Methode : OECD 405.

Sensitisation

Mouse: non-sensitizing. Methode : OECD 429.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

None known.

11.4 Additional information

The classification was carried out according to the calculation method of Regulation No. (EC) 1272/2008 [CLP] as well as in-house investigations.

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

There are no data available on the mixture itself.

Acute (short-term) fish toxicity

Parameter :	LC50 (1-PROPANOL ; CAS No. : 71-23-8)
Species :	Pimephales promelas (fathead minnow)
Evaluation parameter :	Acute (short-term) fish toxicity
Effective dose :	4480 mg/l
Exposure time :	96 h
Parameter :	LC50 (PROPAN-2-OL ; CAS No. : 67-63-0)
Species :	Pimephales promelas (fathead minnow)
Evaluation parameter :	Acute (short-term) fish toxicity
Effective dose :	9640 mg/l
Exposure time :	96 h

Acute (short-term) daphnia toxicity

Parameter :	EC50 (1-PROPANOL ; CAS No. : 71-23-8)
Species :	Daphnia magna (Big water flea)
Evaluation parameter :	Acute (short-term) daphnia toxicity
Effective dose :	3644 mg/l
Exposure time :	48 h
Parameter :	EC50 (PROPAN-2-OL ; CAS No. : 67-63-0)
Species :	Daphnia magna (Big water flea)
Evaluation parameter :	Acute (short-term) daphnia toxicity
Effective dose :	13299 mg/l
Exposure time :	48 h
Parameter :	EC50 (PROPAN-2-OL ; CAS No. : 67-63-0)
Species :	Daphnia magna (Big water flea)
Evaluation parameter :	Acute (short-term) daphnia toxicity
Effective dose :	9714 mg/l
Exposure time :	24 h

Acute (short-term) algae toxicity

Parameter :	EC50 (1-PROPANOL ; CAS No. : 71-23-8)
Species :	Scenedesmus subspicatus
Evaluation parameter :	Inhibition of growth rate
Effective dose :	3100 mg/l
Exposure time :	168 h
Parameter :	EC50 (PROPAN-2-OL ; CAS No. : 67-63-0)
Species :	Pseudokirchneriella subcapitata
Evaluation parameter :	Acute (short-term) algae toxicity
Effective dose :	> 1000 mg/l
Exposure time :	72 h
Parameter :	EC50 (PROPAN-2-OL ; CAS No. : 67-63-0)
Species :	Scenedesmus subspicatus
Evaluation parameter :	Acute (short-term) algae toxicity
Effective dose :	> 100 mg/l
Exposure time :	72 h

Bacteria toxicity

Parameter :	EC50 (1-PROPANOL ; CAS No. : 71-23-8)
Species :	Pseudomonas putida
Evaluation parameter :	Bacteria toxicity
Effective dose :	2700 mg/l
Exposure time :	16 h

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Parameter : EC10 (PROPAN-2-OL ; CAS No. : 67-63-0)
Species : Pseudomonas putida
Evaluation parameter : Bacteria toxicity
Effective dose : 5175 mg/l
Exposure time : 18 h

12.2 Persistence and degradability

Abiotic degradation

No data available.

Biodegradation

All active agents are biodegradable at the dilution rates arising in the sewage system.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

Known or predicted distribution to environmental compartments

There are no data available on the preparation itself.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

No information available.

12.7 Further ecological information

Prevent from flowing into surface water/ground water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product/Packaging disposal

Waste codes / waste designations according to EWC

Waste code product

Concentrate/larger quantities: 18 01 06* (disinfectant).

Waste treatment options

Appropriate disposal / Product

Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

14.1 UN number

UN 1987

14.2 UN proper shipping name

Land transport (ADR/RID)

ALCOHOLS, N.O.S. (ISOPROPANOL · N-PROPANOL)

Sea transport (IMDG)

ALCOHOLS, N.O.S. (ISOPROPANOL · N-PROPANOL)

Air transport (ICAO-TI / IATA-DGR)

ALCOHOLS, N.O.S. (ISOPROPANOL · N-PROPANOL)

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) : 3

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Classification code : F1
Hazard identification number (Kemler No.) : 33
Tunnel restriction code : D/E
Special provisions : LQ 1 I · LQ 7 · E 1
Hazard label(s) : 3

Sea transport (IMDG)

Class(es) : 3
EmS-No. : F-E / S-D
Special provisions : LQ 1 I · E 2
Hazard label(s) : 3

Air transport (ICAO-TI / IATA-DGR)

Class(es) : 3
Special provisions : E 2
Hazard label(s) : 3

14.4 Packing group

II

14.5 Environmental hazards

Land transport (ADR/RID) : No
Sea transport (IMDG) : No
Air transport (ICAO-TI / IATA-DGR) : No

14.6 Special precautions for user

None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information

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

National regulations

Restrictions of occupation

According to directive 94/33/EC, juveniles are only allowed to handle this product as long as all effects of dangerous substances are prevented.

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Indication of changes

02. Labelling according to Regulation (EC) No. 1272/2008 [CLP] · 02. Labelling (67/548/EEC or 1999/45/EC)

16.2 Abbreviations and acronyms

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimates
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CMR = Carcinogen, Mutagen or Reproductive toxicant
CO₂ = Carbon dioxide
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EC = European Commission
EC50 = Half maximal effective concentration
EN = European Standard (Norm)

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EU = European Union
EUH statement = CLP-specific Hazard statement
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
H statement = GHS Hazard statement
IATA = International Air Transport Association ICAO-TI = International Civil Aviation Organization-Technical Instructions
IMDG = International Maritime Dangerous Goods
LC50 = Median lethal concentration
LD50 = Median lethal dose
LogPow = Logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
NOEC/NOEL = No observed effect concentration/level
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RMM = Risk Management Measure
RRN = REACH Registration Number
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
SVHC = Substances of Very High Concern
TLV/STEL = Threshold limit value/short-term exposure limit
TLV/TWA = Threshold limit value/time weighted average
UN = United Nations
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

16.3 Key literature references and sources for data

None

16.4 Relevant R-, H- and EUH-phrases (Number and full text)

H225	Highly flammable liquid and vapour.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
10	Flammable.
11	Highly flammable.
36	Irritating to eyes.
41	Risk of serious damage to eyes.
67	Vapours may cause drowsiness and dizziness.

16.5 Training advice

None

16.6 Additional information

Notice the directions for use on the label.
Dr. Klaus-Michael Wolf Tel. No.: +49 7154 1308-27 · Fax. No.: +49 7154 1308-40 · info@orochemie.de
Dipl. Ing. Elisabeth Gehring Tel. No.: +49 7154 1308-37

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.