

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

**1.1 Product identifier**

Trade name : Sterillium

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

Use of the Substance/Mixture : In-door use  
 Disinfectants and general biocidal products, For further information, refer to the product technical data sheet.

Recommended restrictions on use : Restricted to professional users.

**1.3 Details of the supplier of the safety data sheet**

Manufacturer, importer, supplier : BODE Chemie GmbH  
 Melanchthonstraße 27  
 22525 Hamburg  
 Tel.: +49 (0)40 / 54 00 60

Responsible Department : Scientific Affairs  
 KundenService-SiDa@bode-chemie.de

**1.4 Emergency telephone number**

Emergency telephone number : Giftnotruf Göttingen  
 24h-Phone +49 (0)551 / 1 92 40

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification (67/548/EEC, 1999/45/EC)**

Flammable  
 Irritant

R10: Flammable.  
 R36: Irritating to eyes.  
 R67: Vapours may cause drowsiness and dizziness.

**2.2 Label elements**

**Labelling according to EC Directives: 1999/45/EC**

Hazard symbols :



Irritant

R-phrase(s) : R10 Flammable.  
 R36 Irritating to eyes.  
 R67 Vapours may cause drowsiness and dizziness.

S-phrase(s) : S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

# PRODUCT INFORMATION

## Sterillium

Version 1.4

Revision Date 18.02.2014

Print Date 20.02.2014

S46 If swallowed, seek medical advice immediately and show this container or label.

S35 This material and its container must be disposed of in a safe way.

### 2.3 Other hazards

none

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Hazardous components

Chemical Name	CAS-No. EC-No. REACH Registration Number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Propan-2-ol	67-63-0 200-661-7 01-2119457558-25	F; R11 Xi; R36 R67	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	>= 25 - < 50
Propan-1-ol	71-23-8 200-746-9 01-2119486761-29	F; R11 Xi; R41 R67	Flam. Liq. 2; H225 Eye Dam. 1; H318 STOT SE 3; H336	>= 25 - < 50
tetradecanol	112-72-1 204-000-3 01-2119485910-33	Xi; R36	Eye Irrit. 2; H319 Aquatic Chronic 1; H410	>= 1 - < 3
Mecetronium ethyl sulfate	3006-10-8 221-106-5	C; R34 Xn; R22 N; R50/53	Skin Corr. 1B; H314 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Acute Tox. 4; H302	>= 0,025 - < 0,25

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice : If you feel unwell, seek medical advice (show the label where possi-

- ble).
- If inhaled : If breathed in, move person into fresh air.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
- If swallowed : Rinse mouth.  
Do NOT induce vomiting.

**4.2 Most important symptoms and effects, both acute and delayed**

- Symptoms : No information available.

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

- Treatment : For specialist advice physicians should contact the Poisons Information Service.

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : none

**5.2 Special hazards arising from the substance or mixture**

- Specific hazards during fire-fighting : Cool closed containers exposed to fire with water spray.
- Hazardous combustion products : no data available

**5.3 Advice for firefighters**

- Special protective equipment for firefighters : Use personal protective equipment.
- Further information : Standard procedure for chemical fires.

**SECTION 6: Accidental release measures**

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

- Personal precautions : Ensure adequate ventilation.  
Remove all sources of ignition.

**6.2 Environmental precautions**

- Environmental precautions : Should not be released into the environment.

**6.3 Methods and materials for containment and cleaning up**

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).

**6.4 Reference to other sections**

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

Advice on safe handling : Keep away from heat.

Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

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

Requirements for storage areas and containers : Store at room temperature in the original container. Keep tightly closed.

Advice on common storage : Keep away from food and drink.

**7.3 Specific end use(s)**

no data available

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

Contains no substances with occupational exposure limit values.

DNEL  
 Propan-2-ol (CAS: 67-63-0) : End Use: Workers  
 Exposure routes: Skin contact  
 Potential health effects: Chronic effects  
 Value: 888 mg/kg

End Use: Workers  
 Exposure routes: Inhalation  
 Potential health effects: Chronic effects  
 Value: 500 mg/m3

End Use: Consumers  
 Exposure routes: Skin contact  
 Potential health effects: Chronic effects  
 Value: 319 mg/kg

	<p>End Use: Consumers                  Exposure routes: Inhalation                  Potential health effects: Chronic effects                  Value: 89 mg/m<sup>3</sup></p>
	<p>End Use: Consumers                  Exposure routes: Ingestion                  Potential health effects: Chronic effects                  Value: 26 mg/kg</p>
Propan-1-ol (CAS: 71-23-8)	: <p>End Use: Workers                  Exposure routes: Skin contact                  Potential health effects: Long-term systemic effects                  Value: 136 mg/kg</p> <p>End Use: Workers                  Exposure routes: Inhalation                  Potential health effects: Long-term systemic effects                  Value: 268 mg/m<sup>3</sup></p> <p>End Use: Workers                  Exposure routes: Inhalation                  Potential health effects: Short-term exposure                  Value: 1723 mg/m<sup>3</sup></p> <p>End Use: Consumers                  Exposure routes: Skin contact                  Potential health effects: Long-term systemic effects                  Value: 81 mg/kg</p> <p>End Use: Consumers                  Exposure routes: Inhalation                  Potential health effects: Long-term systemic effects                  Value: 80 mg/m<sup>3</sup></p> <p>End Use: Consumers                  Exposure routes: Inhalation                  Potential health effects: Short-term exposure                  Value: 1036 mg/m<sup>3</sup></p> <p>End Use: Consumers                  Exposure routes: Ingestion                  Potential health effects: Long-term systemic effects                  Value: 61 mg/kg</p>
tetradecanol (CAS: 112-72-1)	: <p>End Use: Workers                  Exposure routes: Skin contact                  Potential health effects: Long-term systemic effects                  Value: 125 mg/kg</p> <p>End Use: Workers                  Exposure routes: Inhalation                  Potential health effects: Long-term systemic effects                  Value: 220 mg/m<sup>3</sup></p> <p>End Use: Consumers                  Exposure routes: Skin contact                  Potential health effects: Acute effects                  Value: 75 mg/kg</p>

End Use: Consumers  
 Exposure routes: Inhalation  
 Potential health effects: Acute effects  
 Value: 65 mg/m<sup>3</sup>

End Use: Consumers  
 Exposure routes: Ingestion  
 Potential health effects: Acute effects  
 Value: 75 mg/kg

PNEC

Propan-2-ol (CAS: 67-63-0) : Fresh water  
 Value: 140,9 mg/l

Marine water  
 Value: 140,9 mg/l

Fresh water sediment  
 Value: 552 mg/kg

Marine sediment  
 Value: 552 mg/kg

Soil  
 Value: 28 mg/kg

Propan-1-ol (CAS: 71-23-8) : Fresh water  
 Value: 10 mg/l

Soil  
 Value: 2,2 mg/kg

Marine water  
 Value: 1 mg/l

Fresh water sediment  
 Value: 22,8 mg/kg

Marine sediment  
 Value: 2,28 mg/kg

tetradecanol (CAS: 112-72-1) : Fresh water  
 Value: 0,00032 mg/l

Marine water  
 Value: 0,000032 mg/l

Soil  
 Value: 0,28 mg/kg

Fresh water sediment  
 Value: 0,36 mg/kg

Marine sediment  
 Value: 0,036 mg/kg

**8.2 Exposure controls**

**Personal protective equipment**

Protective measures : No special protective equipment required.

**Environmental exposure controls**

General advice : Should not be released into the environment.

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**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

Appearance	: liquid
Colour	: light blue
Odour	: pleasant
Odour Threshold	: no data available
pH	: no data available
Melting point/range	: not determined
Boiling point/boiling range	: 83 °C
Flash point	: 23 °C Method: DIN 51755 Part 1
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Burning rate	: no data available
Lower explosion limit	: lower flammability limit 70 mg/m <sup>3</sup> at 20 °C Method: DIN 51649
Upper explosion limit	: no data available
Vapour pressure	: 6 kPa at 50 °C
Relative vapour density	: no data available
Relative density	: no data available
Density	: 0,85 g/cm <sup>3</sup> at 20 °C
Water solubility	: completely miscible

Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Ignition temperature	: 430 °C
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Explosive properties	: no data available
Oxidizing properties	: no data available

**9.2 Other information**

Conductivity	: no data available
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**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

No decomposition if stored and applied as directed.

**10.2 Chemical stability**

The product is chemically stable.

**10.3 Possibility of hazardous reactions**

Hazardous reactions	: None reasonably foreseeable.
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**10.4 Conditions to avoid**

Conditions to avoid	: Heat. Strong sunlight for prolonged periods.
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**10.5 Incompatible materials**

Materials to avoid	: None.
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**10.6 Hazardous decomposition products**

no data available

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**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Product**

Acute oral toxicity	: LD50 Oral rat: 13.300 mg/kg
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Acute inhalation toxicity	: no data available
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Acute toxicity estimate : > 20 mg/l  
 Test atmosphere: vapour  
 Method: Calculation method

Acute dermal toxicity : LD50 Dermal rabbit: > 8.500 mg/kg

Acute toxicity (other routes of administration) : no data available

Skin corrosion/irritation : Result: No skin irritation

Serious eye damage/eye irritation : Result: Eye irritation

Respiratory or skin sensitisation : Result: Does not cause skin sensitisation.

Germ cell mutagenicity

Genotoxicity in vitro : no data available

Genotoxicity in vivo : no data available

Carcinogenicity : This information is not available.

Reproductive toxicity : This information is not available.

Teratogenicity : This information is not available.

STOT - single exposure : Remarks: no data available

Repeated dose toxicity :  
 Note: This information is not available.

STOT - repeated exposure : Remarks: no data available

**Components:**

**Propan-2-ol (CAS: 67-63-0) :**

Acute oral toxicity : LD50 Oral rat: > 2.000 mg/kg

Acute inhalation toxicity : LC50 rat: > 20 mg/l  
 Exposure time: 8 h

Acute dermal toxicity : LD50 Dermal rabbit: > 2.000 mg/kg

Skin corrosion/irritation : Species: rabbit  
 Result: No skin irritation

Serious eye damage/eye irritation : Species: rabbit  
 Result: Eye irritation

Respiratory or skin sensitisation : Test Method: Buehler Test  
 Species: guinea pig  
 Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Genotoxicity in vitro : Type: Ames test  
with and without metabolic activation  
Result: negative

**Propan-1-ol (CAS: 71-23-8) :**

Acute oral toxicity : LD50 Oral rat: 8.000 mg/kg

Acute inhalation toxicity : LC50 rat: > 33,8 mg/l  
Exposure time: 4 h  
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 Dermal rabbit: 4.032 mg/kg  
Method: Calculation method

Skin corrosion/irritation : Species: rabbit  
Result: No skin irritation

Serious eye damage/eye irritation : Species: rabbit  
Result: Irreversible effects on the eye

Respiratory or skin sensitisation : Test Method: Maximisation Test  
Species: guinea pig  
Result: Did not cause sensitisation on laboratory animals.  
Method: OECD Test Guideline 406

Germ cell mutagenicity

Genotoxicity in vitro : Type: in vitro assay  
Result: negative

**tetradecanol (CAS: 112-72-1) :**

Acute oral toxicity : LD50 rat: > 5.000 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 rat: 0,375 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 rabbit: > 5.000 mg/kg

Skin corrosion/irritation : Result: No skin irritation  
Method: OECD Test Guideline 404

Serious eye damage/eye irritation : Result: Eye irritation  
Method: OECD Test Guideline 405

Respiratory or skin sensitisation : Result: Did not cause sensitisation on laboratory animals.  
Method: OECD Test Guideline 406

**Mecetronium ethyl sulfate (CAS: 3006-10-8) :**

- Acute oral toxicity : LD50 Oral rat: > 600 mg/kg  
Method: OECD Test Guideline 401
  
- Acute dermal toxicity : LD50 Dermal rabbit: > 2.000 mg/kg  
Method: OECD Test Guideline 402
  
- Skin corrosion/irritation : Species: rabbit  
Result: Corrosive  
Method: OECD Test Guideline 404
  
- Serious eye damage/eye irritation : Species: rabbit  
Result: Risk of serious damage to eyes.  
Method: OECD Test Guideline 405
  
- Respiratory or skin sensitisation : Result: Does not cause skin sensitisation.  
Method: OECD Test Guideline 406
  
- Germ cell mutagenicity
- Germ cell mutagenicity- Assessment : Not mutagenic in Ames Test.

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**SECTION 12: Ecological information**

**12.1 Toxicity**

**Product:**

- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 2.300 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203
  
- Toxicity to daphnia and other aquatic invertebrates : no data available
- Toxicity to algae : IC50 (Desmodesmus subspicatus (green algae)): 22 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201
  
- Toxicity to bacteria : IC50 (Bacteria): > 10.000 mg/l  
Method: DIN 38 412 Part 8
  
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : no data available

**Components:**

**Propan-2-ol (CAS 67-63-0) :**

- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 100 mg/l  
Exposure time: 48 h

- Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 100 mg/l  
Exposure time: 48 h
- Toxicity to algae : EC50 (*Scenedesmus capricornutum* (fresh water algae)): > 100 mg/l  
Exposure time: 72 h

**Propan-1-ol (CAS 71-23-8) :**

- Toxicity to fish : LC50 (*Pimephales promelas* (fathead minnow)): 4.555 mg/l  
Exposure time: 96 h  
Test Method: flow-through test

- Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 3.644 mg/l  
Exposure time: 48 h  
Method: DIN 38412

- Toxicity to algae : NOEC (*Chlorella vulgaris* (Fresh water algae)): 1.150 mg/l  
Exposure time: 48 h

- Toxicity to bacteria : IC50 (Bacteria): > 1.000 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209

**tetradecanol (CAS 112-72-1) :**

- Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): > 100 mg/l  
Exposure time: 96 h  
Method: ISO 7346/2

- Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 1 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

- Toxicity to algae : EC50 (*Desmodesmus subspicatus* (green algae)): > 1 mg/l  
Exposure time: 72 h  
Test Method: static test  
Method: OECD Test Guideline 201

- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,0016 mg/l  
Exposure time: 21 d  
Species: *Daphnia magna* (Water flea)  
Method: OECD Test Guideline 211

**Mecetronium ethyl sulfate (CAS 3006-10-8) :**

- Toxicity to fish : LC50 (*Leuciscus idus* (Golden orfe)): 0,2 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

- Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia*): 0,019 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

- Toxicity to algae : EC50 (*Desmodesmus subspicatus* (green algae)): 0,025 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

- NOEC (*Desmodesmus subspicatus* (green algae)): 0,00014 mg/l  
Exposure time: 21 d

- M-Factor : 10  
Toxicity to bacteria : IC50 (Bacteria): 22 mg/l

Method: OECD Test Guideline 209

**12.2 Persistence and degradability**

**Product:**

Biodegradability : Result: Readily biodegradable.  
Method: OECD Test Guideline 301D

**Components:**

**Mecetronium ethyl sulfate (CAS 3006-10-8) :**

Biodegradability : Result: Readily biodegradable.  
Method: OECD Test Guideline 301

**12.3 Bioaccumulative potential**

**Product:**

Bioaccumulation : no data available

**12.4 Mobility in soil**

**Product:**

Distribution among environmental compartments : no data available

**12.5 Results of PBT and vPvB assessment**

**Product:**

Assessment : no data available

**12.6 Other adverse effects**

**Product:**

Adsorbed organic bound halogens (AOX) : Product does not contain any organic halogens.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

Product : Dispose of as hazardous waste in compliance with local and national regulations.  
The following Waste Codes are only suggestions:

Waste Code EU : 070601\* aqueous washing liquids and mother liquors

Contaminated packaging : Empty remaining contents.  
Store containers and offer for recycling of material when in accordance with the local regulations.

**SECTION 14: Transport information**

**14.1 UN number**

# PRODUCT INFORMATION

## Sterillium

Version 1.4

Revision Date 18.02.2014

Print Date 20.02.2014

**ADR** : UN 1987  
**IMDG** : UN 1987  
**IATA** : UN 1987

### 14.2 UN proper shipping name

**ADR** : ALCOHOLS, N.O.S. (isopropanol, n-propanol)  
**IMDG** : ALCOHOLS, N.O.S. (isopropanol, n-propanol)  
**IATA** : ALCOHOLS, N.O.S. (isopropanol, n-propanol)

### 14.3 Transport hazard class

**ADR** : 3  
**IMDG** : 3  
**IATA** : 3

### 14.4 Packaging group

**ADR**  
Packaging group : III  
Classification Code : F1  
Hazard Identification Number : 30  
Labels : 3  
Tunnel restriction code : D/E  
**IMDG**  
Packaging group : III  
Labels : 3  
EmS Number : F-E, S-D  
**IATA**  
Packaging group : III  
Labels : 3

### 14.5 Environmental hazards

**ADR**  
Environmentally hazardous : no  
**IMDG**  
Marine pollutant : no  
**IATA**  
Environmentally hazardous : no

### 14.6 Special precautions for user

not applicable

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

not applicable

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## SECTION 15: Regulatory information

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

#### Notification status

CH INV : The formulation contains substances listed on the Swiss Inventory  
TSCA : Not On TSCA Inventory  
DSL : This product contains the following components listed on the Canadian NDSL. All other components are on the Canadian DSL.  
AICS : Not in compliance with the inventory  
NZIoC : Not in compliance with the inventory  
ENCS : Not in compliance with the inventory  
ISHL : Not in compliance with the inventory  
KECI : Not in compliance with the inventory

PICCS : Not in compliance with the inventory  
 IECSC : Not in compliance with the inventory

For explanation of abbreviations see section 16.

**15.2 Chemical Safety Assessment**

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

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**SECTION 16: Other information**

**Full text of R-phrases referred to under sections 2 and 3**

R10 Flammable.  
 R11 Highly flammable.  
 R22 Harmful if swallowed.  
 R34 Causes burns.  
 R36 Irritating to eyes.  
 R41 Risk of serious damage to eyes.  
 R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 R67 Vapours may cause drowsiness and dizziness.

**Full text of H-Statements referred to under sections 2 and 3.**

H225 Highly flammable liquid and vapour.  
 H302 Harmful if swallowed.  
 H314 Causes severe skin burns and eye damage.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H336 May cause drowsiness or dizziness.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.

**Full text of other abbreviations**

Notification status

CH INV : Switzerland. New notified substances and declared preparations  
 TSCA : Toxic substances control act  
 DSL : Canada. DSL - Domestic Substances List, part of CEPA  
 AICS : Australia. AICS - Australian Inventory of Chemical Substances  
 NZIoC : New Zealand Inventory of Chemical Substances  
 ENCS : Japan. ENCS - Existing and New Chemical Substances Inventory  
 ISHL : Japan. Industrial Safety and Health Law - Inventory  
 KECI : Korea. KECI - Korean Existing Chemicals Inventory  
 PICCS : Philippines. PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 IECSC : China. IECSC - Inventory of Existing Chemical Substances in China

**Safety datasheet sections which have been updated:**

- 8. Exposure controls/personal protection
- 9. Physical and chemical properties
- 11. Toxicological information
- 12. Ecological information

15. Regulatory information

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.