

**MG**

Version 1.3

Revision Date 09-18-2014

Print Date 12-06-2014

**SECTION 1. IDENTIFICATION**

Product name : MG  
Mat.-No./ Genisys-No. : 20737593322

**Manufacturer or supplier's details**

Company name of supplier : Roche Diagnostics  
-  
Address : 9115 Hague Road  
46250 Indianapolis IN  
Telephone : 1-800-428-5074  
Emergency telephone number:  
In case of emergencies: : CHEMTREC 1-800-424-9300 (U.S. or  
Canada)  
1-703-527-3887 (International)

**Recommended use of the chemical and restrictions on use**

Restrictions on use : For professional users only.

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

The product is a kit consisting of individual ingredients. The classification of the ingredients can be obtained from section 3. Section Label elements contains the resulting labelling for the kit.

**GHS Label element**

Hazard pictograms :



Signal word : Warning

Hazard statements : H315 Causes skin irritation.  
H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/ eye protection/ face protection.  
**Response:**  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P362 Take off contaminated clothing and wash before reuse.

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**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****R1 (A / B)****GHS Classification**

Skin irritation, Category 2

H315: Causes skin irritation.

Eye irritation, Category 2A

H319: Causes serious eye irritation.

**Hazardous components**

Chemical Name	CAS-No.	Concentration (%)
tetrabutylammonium hydroxide	2052-49-5	>= 1 - < 5

**R2 (C)****GHS Classification**

Skin irritation, Category 2

H315: Causes skin irritation.

Eye irritation, Category 2A

H319: Causes serious eye irritation.

**Hazardous components**

Chemical Name	CAS-No.	Concentration (%)
tetrabutylammonium hydroxide	2052-49-5	>= 1 - < 5

**SECTION 4. FIRST AID MEASURES**

- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : Move to fresh air.  
If unconscious place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician.  
If on skin, rinse well with water.  
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

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Rinse mouth with water.

Most important symptoms and effects, both acute and delayed : No information available.

Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

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**SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : No information available.

Further information : Standard procedure for chemical fires.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Prevent further leakage or spillage if safe to do so.  
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

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**SECTION 7. HANDLING AND STORAGE**

Advice on safe handling : Do not breathe vapours/dust.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Electrical installations / working materials must comply with

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the technological safety standards.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****R1 (A / B)****Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

**R2 (C)****Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

Hand protection

Material : Protective gloves  
 Remarks : The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water  
 Tightly fitting safety goggles  
 Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : impervious clothing  
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.  
 When using do not smoke.  
 Wash hands before breaks and at the end of workday.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****R1 (A / B)**

Appearance : liquid  
 pH : 7.5  
 Melting point/range : No data available  
 Boiling point/boiling range : No data available  
 Flash point : does not flash

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Flammability (solid, gas)	: The product is not flammable.
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Density	: 1.01 g/cm <sup>3</sup> (25 °C)
Solubility(ies)	
Water solubility	: completely miscible
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

**R2 (C)**

Appearance	: liquid
pH	: 7.5
Melting point/range	: No data available
Boiling point/boiling range	: No data available
Flash point	: does not flash
Flammability (solid, gas)	: The product is not flammable.
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Density	: 1.007 g/cm <sup>3</sup> (25 °C)
Solubility(ies)	
Water solubility	: completely miscible
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No decomposition if stored and applied as directed.

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Conditions to avoid : No data available

Incompatible materials : No data available

Hazardous decomposition products : No data available

**SECTION 11. TOXICOLOGICAL INFORMATION****R1 (A / B)****Information on likely routes of exposure****Acute toxicity**

Not classified based on available information.

**Product:**

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg  
Method: Calculation method

**Components:****tetrabutylammonium hydroxide:**

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Acute toxicity (other routes of administration) : Remarks: No data available

**Skin corrosion/irritation**

Causes skin irritation.

**Product:**

Remarks: May cause skin irritation in susceptible persons.

**Components:****tetrabutylammonium hydroxide:**

Result: Causes burns.

Remarks: Extremely corrosive and destructive to tissue.

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Product:**

Remarks: May cause irreversible eye damage.

**Components:****tetrabutylammonium hydroxide:**

Remarks: May cause irreversible eye damage.

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**Respiratory or skin sensitisation**

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

**Components:****tetrabutylammonium hydroxide:**

Result: No data available

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**Components:****tetrabutylammonium hydroxide:**

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

**STOT - repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Components:****tetrabutylammonium hydroxide:**

No data available

**Further information****Components:****tetrabutylammonium hydroxide:**

Remarks: No data available

**R2 (C)****Information on likely routes of exposure****Acute toxicity**

Not classified based on available information.

**Product:**

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg  
Method: Calculation method

**Components:****tetrabutylammonium hydroxide:**

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Acute toxicity (other routes of administration) : Remarks: No data available

**Skin corrosion/irritation**

Causes skin irritation.

**Product:**

Remarks: May cause skin irritation in susceptible persons.

**Components:****tetrabutylammonium hydroxide:**

Result: Causes burns.

Remarks: Extremely corrosive and destructive to tissue.

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Product:**

Remarks: May cause irreversible eye damage.

**Components:****tetrabutylammonium hydroxide:**

Remarks: May cause irreversible eye damage.

**Respiratory or skin sensitisation**

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

**Components:****tetrabutylammonium hydroxide:**

Result: No data available

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**Components:****tetrabutylammonium hydroxide:**

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

**STOT - repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Components:****tetrabutylammonium hydroxide:**

No data available

**Further information****Components:****tetrabutylammonium hydroxide:**

Remarks: No data available

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**SECTION 12. ECOLOGICAL INFORMATION****R1 (A / B)****Ecotoxicity****Product:**

Ecotoxicology Assessment

Toxicity Data on Soil

: Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

**Components:****tetrabutylammonium hydroxide:**

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Toxicity to algae : Remarks: No data available

Toxicity to bacteria : Remarks: No data available

Ecotoxicology Assessment  
Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

**Persistence and degradability****Components:****tetrabutylammonium hydroxide:**

Biodegradability : Remarks: No data available

Biochemical Oxygen Demand (BOD) : Remarks: No data available

Chemical Oxygen Demand (COD) : Remarks: No data available

Dissolved organic carbon (DOC) : Remarks: No data available

Physico-chemical removability : Remarks: No data available

**Bioaccumulative potential****Components:****tetrabutylammonium hydroxide:**

Bioaccumulation : Remarks: No data available

Partition coefficient: n-octanol/water : Remarks: No data available

**Mobility in soil****Components:****tetrabutylammonium hydroxide:**

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

**Other adverse effects****Product:**

Regulation	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

**Components:****tetrabutylammonium hydroxide:**

Environmental fate and pathways	: No data available
Adsorbed organic bound halogens (AOX)	: Remarks: No data available
Additional ecological information	: No data available

***R2 (C)*****Ecotoxicity****Product:**

Ecotoxicology Assessment Toxicity Data on Soil	: Not expected to adsorb on soil.
Other organisms relevant to the environment	: No data available

**Components:****tetrabutylammonium hydroxide:**

Toxicity to fish	: Remarks: No data available
Toxicity to daphnia and other aquatic invertebrates	: Remarks: No data available
Toxicity to algae	: Remarks: No data available
Toxicity to bacteria	: Remarks: No data available
Ecotoxicology Assessment Toxicity Data on Soil	: Not expected to adsorb on soil.
Other organisms relevant to the environment	: No data available

**Persistence and degradability****Components:****tetrabutylammonium hydroxide:**

Biodegradability	: Remarks: No data available
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Biochemical Oxygen Demand (BOD) : Remarks: No data available

Chemical Oxygen Demand (COD) : Remarks: No data available

Dissolved organic carbon (DOC) : Remarks: No data available

Physico-chemical removability : Remarks: No data available

**Bioaccumulative potential****Components:****tetrabutylammonium hydroxide:**

Bioaccumulation : Remarks: No data available

Partition coefficient: n-octanol/water : Remarks: No data available

**Mobility in soil****Components:****tetrabutylammonium hydroxide:**

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

**Other adverse effects****Product:**

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

**Components:****tetrabutylammonium hydroxide:**

Environmental fate and pathways : No data available

Adsorbed organic bound halogens (AOX) : Remarks: No data available

Additional ecological information : No data available

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

- Waste from residues : Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.  
Can be disposed as waste water, when in compliance with local regulations.
- Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

**SECTION 14. TRANSPORT INFORMATION****International Regulation****IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

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

Not applicable for product as supplied.

**National Regulations****49 CFR**

Not regulated as a dangerous good

**SECTION 15. REGULATORY INFORMATION****R1 (A / B)****EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Hydrochloric acid (theor. 100%)	7647-01-0	5000	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

hydrogen chloride	7647-01-0	0.0755 %
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The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

hydrogen chloride	7647-01-0	0.0755 %
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This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

**Massachusetts Right To Know**

hydrogen chloride	7647-01-0	0 - 0.1 %
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**Pennsylvania Right To Know**

water	7732-18-5	90 - 100 %
2-(tris(hydroxymethyl)methylamino)ethane-1-sulphonic acid	7365-44-8	1 - 5 %
hydrogen chloride	7647-01-0	0 - 0.1 %

**New Jersey Right To Know**

water	7732-18-5	90 - 100 %
2-(tris(hydroxymethyl)methylamino)ethane-1-sulphonic acid	7365-44-8	1 - 5 %
tetrabutylammonium hydroxide	2052-49-5	1 - 5 %

**California Prop 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**R2 (C)****EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Edetic acid	60-00-4	5000	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

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This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCOMI Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

edetic acid	60-00-4	0.465 %
hydrogen chloride	7647-01-0	0.0633 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

edetic acid	60-00-4	0.465 %
hydrogen chloride	7647-01-0	0.0633 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

**Massachusetts Right To Know**

hydrogen chloride	7647-01-0	0 - 0.1 %
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**Pennsylvania Right To Know**

water	7732-18-5	90 - 100 %
edetic acid	60-00-4	0.1 - 1 %
hydrogen chloride	7647-01-0	0 - 0.1 %

**New Jersey Right To Know**

water	7732-18-5	90 - 100 %
tetrabutylammonium hydroxide	2052-49-5	1 - 5 %
2-(tris(hydroxymethyl)methylamino)ethane-1-sulphonic acid	7365-44-8	1 - 5 %

**California Prop 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**SECTION 16. OTHER INFORMATION**

Further information

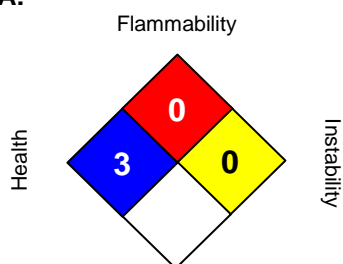
**R1 (A / B)**

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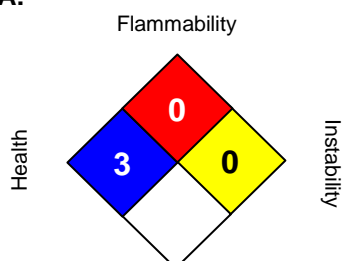
**NFPA:**

Special hazard.

**HMIS III:**

<b>HEALTH</b>	<b>3</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

**R2 (C)  
NFPA:**

Special hazard.

**HMIS III:**

<b>HEALTH</b>	<b>3</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

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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.