

## Kamasol brillant Grün

Version: 2.2

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06.03.2018

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

#### 1.1 Product identifier

Trade name : Kamasol brillant Grün

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

Use of the Sub-  
stance/Mixture : Fertilizer

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

Company : COMPO EXPERT GmbH  
Kroegerweg 10  
D-48155 Münster

Telephone : +49 (0) 251 29 79 81 – 000

Telefax : +49 (0) 251 29 79 81 - 111

E-mail address of person  
responsible for the SDS : info@compo-expert.com

#### 1.4 Emergency telephone number

Quality / Safety / Environment  
Telephone:+49 (0) 2151 - 579 - 0

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

#### 2.2 Label elements

##### Labelling (REGULATION (EC) No 1272/2008)

Hazard statements : Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

#### 2.3 Other hazards

None known.

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### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

Chemical nature : Liquid mixture of organic and inorganic salts of fertilizers.

##### Hazardous components

Chemical Name	CAS-No.	Classification	Concentration
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	EC-No. Registration number		(% w/w)
ammonium nitrate	6484-52-2 229-347-8 01-2119490981-27- XXXX	Ox. Sol. 3; H272 Eye Irrit. 2; H319	>= 1 - <= 10
potassium nitrate	7757-79-1 231-818-8 01-2119488224-35- XXXX	Ox. Sol. 3; H272	>= 1 - <= 10
orthophosphoric acid	7664-38-2 231-633-2 01-2119485924-24- XXXX	Skin Corr. 1B; H314	>= 0,5 - <= 2

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- If inhaled : Move to fresh air.  
If symptoms persist, call a physician.  
If unconscious place in recovery position and seek medical advice.  
In case of lung irritation, first treatment with dexametason aerosol (spray).
- In case of skin contact : Wash off with soap and water.
- In case of eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.

#### 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 : Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

- Suitable extinguishing media : Water
- Unsuitable extinguishing : Foam

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media	Dry chemical Carbon dioxide (CO <sub>2</sub> ) Sand
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### 5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting	: Thermal decomposition can lead to release of irritating gases and vapours. Nitrogen oxides (NO <sub>x</sub> ) ammonia
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### 5.3 Advice for firefighters

Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus.
Further information	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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## SECTION 6: Accidental release measures

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

Personal precautions	: No special precautions required.
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### 6.2 Environmental precautions

Environmental precautions	: Do not empty into drains. Retain and dispose of contaminated wash water.
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### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
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### 6.4 Reference to other sections

For personal protection see section 8.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling	: Keep away from direct sunlight. Keep away from heat. Do not allow to dry.
Advice on protection against fire and explosion	: Keep away from heat and sources of ignition.
Hygiene measures	: Wash hands before breaks and at the end of workday.

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

Requirements for storage	: Keep away from heat. Keep away from sources of ignition -
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areas and containers                      No smoking. Protect from contamination.

Advice on common storage            : Not relevant

Storage class (TRGS 510)            : 12, Non Combustible Liquids

Recommended storage tem-  
perature                                    : 5 - 35 °C

### 7.3 Specific end use(s)

Specific use(s)                            : Always read the label and product information before use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
orthophosphoric acid		TWA	1 mg/m <sup>3</sup>	2000/39/EC
Further information	Indicative			
		STEL	2 mg/m <sup>3</sup>	2000/39/EC
Further information	Indicative			
		(Inhalable fraction)	2 mg/m <sup>3</sup>	DE TRGS 900
Peak-limit: excursion factor (category)	2;(I)			
Further information	Commission for dangerous substances, Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission), European Union (The EU has established a limit value: deviations in value and peak limit are possible), When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		TLV-C (Inhalable fraction)	1 ml/m <sup>3</sup> 1 mg/m <sup>3</sup>	other
		TLV-C (Inhalable fraction)	2 ml/m <sup>3</sup> 2 mg/m <sup>3</sup>	AGW

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
ammonium nitrate	Workers	Inhalation	Specific effects	36 mg/m <sup>3</sup>
Remarks:	Exposure time: 1 d			
	Workers	Skin contact	Specific effects	5,12 mg/kg
Remarks:	Exposure time: 1 d			

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	Consumers	Ingestion	Specific effects	2,56 mg/kg bw/day
Remarks:	Exposure time: 1 d			
	Consumers	Inhalation	Specific effects	8,9 mg/m <sup>3</sup>
Remarks:	Exposure time: 1 d			
potassium nitrate	Workers	Inhalation	Systemic effects	36,7 mg/m <sup>3</sup>
	Workers	Skin contact	Systemic effects	20,8 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Ingestion	Systemic effects	12,5 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Skin contact	Systemic effects	12,5 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Inhalation	Systemic effects	10,9 mg/m <sup>3</sup>

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
ammonium nitrate	Fresh water	0,45 mg/l
	Marine water	0,045 mg/l
	Ceiling Limit Value	4,5 mg/l
potassium nitrate	Fresh water	0,45 mg/l
	Marine water	0,045 mg/l
	Ceiling Limit Value	4,5 mg/l
	Sewage treatment plant	18 mg/l

## 8.2 Exposure controls

### Personal protective equipment

Eye protection : Avoid contact with eyes.  
Tightly fitting safety goggles

Hand protection  
Remarks : For prolonged or repeated contact use protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Recommended preventive skin protection

Skin and body protection : not required

Respiratory protection : Not relevant

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### Environmental exposure controls

General advice : Do not empty into drains.  
Retain and dispose of contaminated wash water.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : various

Odour : odourless

Odour Threshold : No data available

pH : ca. 2,5, (20 °C)

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : Not applicable, The product is not flammable.

Evaporation rate : No data available

Flammability (solid, gas) : The product is not flammable.

Upper explosion limit : Not applicable

Lower explosion limit : Not applicable

Vapour pressure : No data available

Relative vapour density : No data available

Density : ca. 1,21 g/cm<sup>3</sup> (20 °C)

Solubility(ies)  
Water solubility : soluble

Partition coefficient: n-octanol/water : Not applicable

Auto-ignition temperature : Not applicable

Decomposition temperature : Stable at normal ambient temperature and pressure. Do not allow evaporation to dryness.

Viscosity  
Viscosity, dynamic : No data available

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Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	Not applicable

### 9.2 Other information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Contact with strong bases liberates ammonia.

### 10.4 Conditions to avoid

Conditions to avoid : None known.

### 10.5 Incompatible materials

Materials to avoid : Sulphur, chlorites, chloride, chlorates, Hypochlorites, acid or alkaline reacting substances, flammable oxidizable substances, nitrites, metallic salts, metallic powder, herbicide, chlorinated hydrocarbons, organic compounds.

### 10.6 Hazardous decomposition products

Hazardous decomposition products : Nitrogen oxides (NO<sub>x</sub>)  
ammonia

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Product:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

##### Components:

##### **ammonium nitrate:**

Acute oral toxicity : LD50 (Rat): > 2.950 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : > 88,8 mg/l

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Method: No information available.

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: OECD Test Guideline 402

**potassium nitrate:**  
Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0,527 mg/l

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg

**orthophosphoric acid:**  
Acute oral toxicity : LD50 (Rat): 2.600 mg/kg  
Method: OECD Guideline 423

### Skin corrosion/irritation

**Product:**

Remarks: May irritate skin.

**Components:**

**ammonium nitrate:**  
Species: Rabbit  
Method: OECD Test Guideline 404  
Result: non-irritant

**potassium nitrate:**  
Species: Rabbit  
Result: No skin irritation

### Serious eye damage/eye irritation

**Product:**

Remarks: May irritate eyes.

**Components:**

**ammonium nitrate:**  
Species: Rabbit  
Method: OECD Test Guideline 405  
Result: Irritant

**potassium nitrate:**  
Species: Rabbit  
Result: No eye irritation

### Respiratory or skin sensitisation

**Product:**



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Result: non-sensitizing

### **Components:**

#### **ammonium nitrate:**

Result: Does not cause skin sensitisation.

#### **potassium nitrate:**

Result: non-sensitizing

### **Germ cell mutagenicity**

#### **Product:**

Genotoxicity in vitro : Remarks: Contains no hazardous ingredients according to GHS

### **Components:**

#### **ammonium nitrate:**

Genotoxicity in vitro : Method: OECD Test Guideline 471  
Result: negative

#### **potassium nitrate:**

Genotoxicity in vitro : Remarks: No data available

### **Carcinogenicity**

#### **Product:**

Remarks: Contains no ingredient listed as a carcinogen

### **Components:**

#### **ammonium nitrate:**

Species: Rat

Remarks: Animal testing did not show any carcinogenic effects.

#### **potassium nitrate:**

Remarks: Did not show carcinogenic effects in animal experiments.

### **Reproductive toxicity**

#### **Product:**

Effects on fertility :  
Remarks: No toxicity to reproduction

Effects on foetal development : Remarks: Contains no ingredient listed as toxic to reproduction

### **Components:**

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### **ammonium nitrate:**

Effects on fertility : Species: Rat

Remarks: Animal testing did not show any effects on fertility.

Effects on foetal development : Species: Rat

Remarks: Did not show teratogenic effects in animal experiments.

### **potassium nitrate:**

Effects on fertility :

Remarks: No toxicity to reproduction

Effects on foetal development : Remarks: Did not show teratogenic effects in animal experiments.

### **STOT - single exposure**

#### **Product:**

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

#### **Components:**

##### **potassium nitrate:**

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

### **STOT - repeated exposure**

#### **Product:**

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

#### **Components:**

##### **potassium nitrate:**

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

### **Repeated dose toxicity**

#### **Components:**

##### **ammonium nitrate:**

Species: Rat  
NOAEL: > 1.500 mg/kg  
Application Route: Oral  
Exposure time: 28 d

Species: Rat

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NOAEL: = 256 mg/kg  
Application Route: Oral  
Exposure time: 52 w  
Method: OECD Test Guideline 453

Species: Rat  
NOAEL: >= 185 mg/kg  
Application Route: by inhalation  
Exposure time: 2 w  
Method: Repeated Dose Inhalation Toxicity: 28-day or 14-day Study.

### potassium nitrate:

Species: Rat  
NOAEL: >= 1.500 mg/kg  
Exposure time: 1 d

### Experience with human exposure

#### Product:

General Information : Danger of methaemoglobin formation.

### Further information

#### Product:

Remarks: Information given is based on data obtained from similar substances.

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Product:

- Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 422 mg/l  
Exposure time: 48 h  
Test Type: static test
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 555 mg/l  
Exposure time: 48 h  
Test Type: static test
- Toxicity to algae : No observed effect concentration (Desmodesmus subspicatus (green algae)): 83 mg/l  
Exposure time: 168 h  
Test Type: other  
Method: No data available
- Toxicity to bacteria : EC20 (activated sludge): ca. 850 mg/l  
Exposure time: 0,5 h  
Test Type: other  
Method: No data available  
Remarks: Inhibition of degradation activity in activated sludge

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is not to be anticipated during correct introduction of low concentrations.

### Components:

#### **ammonium nitrate:**

- Toxicity to fish : LC50 (Fish): > 100 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 490 mg/l  
Exposure time: 48 h  
  
LC50 : 490 mg/l
- Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): 1.700 mg/l  
Exposure time: 10 d

#### **potassium nitrate:**

- Toxicity to fish : LC50 (Fish): > 100 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 490 mg/l  
Exposure time: 48 h
- Toxicity to algae : LC50 : >= 1.700 mg/l  
Exposure time: 10 d

## 12.2 Persistence and degradability

### Product:

- Biodegradability : Remarks: The product works in the soil as fertilizer and is diminished in a few weeks.

### Components:

#### **ammonium nitrate:**

- Biodegradability : Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.

#### **potassium nitrate:**

- Biodegradability : Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.

## 12.3 Bioaccumulative potential

### Product:

- Bioaccumulation : Remarks: Bioaccumulation is unlikely.

### Components:

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### **ammonium nitrate:**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-  
octanol/water : log Pow: -3,1

### **potassium nitrate:**

Bioaccumulation : Remarks: Does not bioaccumulate.

## 12.4 Mobility in soil

### **Product:**

Mobility : Remarks: No data available

Distribution among environ-  
mental compartments : Remarks: No data available

### **Components:**

#### **potassium nitrate:**

Mobility : Remarks: No data available

## 12.5 Results of PBT and vPvB assessment

### **Product:**

Assessment : Remarks: No data available

### **Components:**

#### **potassium nitrate:**

Assessment : This substance is not considered to be persistent, bioaccumu-  
lating and toxic (PBT).. This substance is not considered to be  
very persistent and very bioaccumulating (vPvB)..

## 12.6 Other adverse effects

### **Product:**

Additional ecological infor-  
mation : Do not flush into surface water or sanitary sewer system.  
Information given is based on data on the components and  
the ecotoxicology of similar products.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Check if agriculture use is possible.  
Contact manufacturer.

Contaminated packaging : Contaminated packaging should be emptied as far as possi-  
ble; then it can be passed on for recycling after being thor-  
oughly cleaned.

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### SECTION 14: Transport information

#### 14.1 UN number

Not regulated as a dangerous good

#### 14.2 UN proper shipping name

Not regulated as a dangerous good

#### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

#### 14.4 Packing group

Not regulated as a dangerous good

#### 14.5 Environmental hazards

Not regulated as a dangerous good

#### 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

Remarks : Not relevant

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### SECTION 15: Regulatory information

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

Water contaminating class : WGK 1 slightly water endangering  
(Germany)

#### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

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### SECTION 16: Other information

#### Full text of H-Statements

H272 : May intensify fire; oxidizer.  
H314 : Causes severe skin burns and eye damage.  
H319 : Causes serious eye irritation.

#### Full text of other abbreviations

Eye Irrit. : Eye irritation  
Ox. Sol. : Oxidizing solids  
Skin Corr. : Skin corrosion

(Q)SAR - (Quantitative) Structure Activity Relationship; ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; DIN - Standard of the German Institute for Standardisation; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx -

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Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TRGS - Technical Rule for Hazardous Substances; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice

### Further information

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.

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