

# Safety Data Sheet

According to EC Directive 91/155/EEC

Date of issue: 23.04.2004  
Supersedes edition of 21.11.2000

## 1. Identification of the substance/preparation and of the company/undertaking

### Identification of the product

Catalogue No.: 114562  
Product name: Potassium Cell Test Method: photometric 5.0 - 50.0 mg/l K 25  
Tests Spectroquant®  
K-1K

### Use of the substance/preparation

Reagent for analysis

### Company/undertaking identification

Company: Merck KGaA \* 64271 Darmstadt \* Germany \* Tel: +49 (0)6151/72-0  
Emergency telephone No.: +49 (0)6151/72112 \* Fax: +49 (0)6151/72-7780

## 2. Composition/information on ingredients

Aqueous solution of organic compounds.

### Hazardous ingredients:

#### Name according to EC Directives:

CAS-No.	EC No.	EC-Index-No.	Classification	Content:
Formaldehyde 50-00-0	200-001-8	605-001-00-5	Carc. Cat. 3; R40 T; R23/24/25 Xn; R43 C; R34	≥ 25 - < 50 %
methanol 67-56-1	200-659-6	603-001-00-X	F; R11 T; R23/24/25-39/23/24/25	≥ 10 - < 20 %

(Full text of R-Phrases in heading 16)

## 3. Hazards identification

Toxic by inhalation, in contact with skin and if swallowed. Causes burns. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. Limited evidence of a carcinogenic effect. May cause sensitization by skin contact.

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## 4. First aid measures

First-aid personnel: ensure self-protection!

After inhalation: fresh air.

If breathing stops: immediately apply mechanical ventilation, if necessary oxygen mask.

Immediately call in physician.

After skin contact: wash off with plenty of water. Remove contaminated clothing.

After eye contact: rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist.

After swallowing: make victim drink plenty of water. Subsequently administer: activated charcoal (20 - 40 g in 10% slurry). Immediately call in physician.

Indications for the doctor: Gastric lavage. Laxative: Sodium sulfate (1 tablespoon/1/4 l water).  
Mention methanol.

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## 5. Fire-fighting measures

Suitable extinguishing media:

Powder, foam.

Special risks:

formaldehyde vapours: Combustible.

Forms explosive mixtures with air at ambient temperatures.

Special protective equipment for fire fighting:

Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

Other information:

Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or groundwater.

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## 6. Accidental release measures

Person-related precautionary measures:

Do not inhale vapours/aerosols. Avoid substance contact. Ensure supply of fresh air in enclosed rooms.

Environmental-protection measures:

Do not allow to enter sewerage system; risk of explosion!

Procedures for cleaning / absorption:

Take up with liquid-absorbent material (e.g. Chemizorb®). Forward for disposal. Clean up affected area.

Additional notes:

Render harmless: Treatment with excess sodium hydrogen sulfite solution.

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## 7. Handling and storage

### Handling:

#### Notes for safe handling:

Work under hood . Do not inhale substance. Avoid generation of vapours/aerosols.

### Storage:

Tightly closed in a well-ventilated place. Accesible only for authorised persons. At +15°C to +25°C.

The data apply to the entire pack.

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## 8. Exposure controls/personal protection

### Specific control parameter

BAT Germany (biol. tolerance value)

Name	Methanol
Parametr	Methanol
Values	30 mg/l
Test material	urine
test extraction, time	c,b

EC

Name	Formaldehyde
Carcinogenic	C 3:owing possible carcinogenic effects for man
Sensitization	Sh Danger of sensitization of the skin

TRGS 900

Name	Formaldehyde
Value	0.5 ml/m <sup>3</sup> 0.62 mg/m <sup>3</sup>
Peak limit	=1= Concentration must not exceed limit concentration.
Embryotoxic	Y Substances with which no foetotoxic risk is to be expected when observing the maximum allowable concentration (MAC Germany) and the biological tolerance value at the workplace (BAT Germany).
Skin resorption	Risk of skin absorption
Name	Methanol
Value	200 ml/m <sup>3</sup> 270 mg/m <sup>3</sup>
Peak limit	4 exceeding factor: 4-fold in 15 minutes
Embryotoxic	Y Substances with which no foetotoxic risk is to be expected when observing the maximum allowable concentration (MAC Germany) and the biological tolerance value at the workplace (BAT Germany).
Skin resorption	Risk of skin absorption

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## *Personal protective equipment:*

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory protection: required when vapours/aerosols are generated.

Eye protection: required

Hand protection: In full contact:  
Glove material: butyl rubber  
Layer thickness: 0.7 mm  
Breakthrough time: > 480 Min.  
In splash contact:  
Glove material: viton  
Layer thickness: 0.70 mm  
Breakthrough time: > 240 Min.

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374, for example KCL 898 Butoject® (full contact), 890 Vitoject® (splash contact). The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

## Industrial hygiene:

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance. Under no circumstances eat or drink at workplace. Work under hood . Do not inhale substance. Avoid generation of vapours/aerosols.

## 9. Physical and chemical properties

Form:	liquid		
Colour:	colourless		
Odour:	pungent		
pH value	(20 °C)	2.8-4.0	
Melting point		< -15	°C
Boiling point		93-96	°C
Ignition temperature		~ 300	°C (Formaldehyde)
Flash point		> 62	°C
Explosion limits	lower	7	Vol% (Formaldehyde)
	upper	73	Vol% (Formaldehyde)
Density	(20 °C)	1.09	g/cm <sup>3</sup>
Solubility in water	(20 °C)	soluble	
log Pow:		0.00	(Formaldehyde) (calculated)

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## 10. Stability and reactivity

### *Conditions to be avoided*

Heating.

### *Substances to be avoided*

polymerization initiators (e.g. alkali metals), acids, nitrogen oxides, hydrogen peroxide, oxidizing agent, performic acid, phenol.

### *Hazardous decomposition products*

no information available

### *Stabilizer*

methanol

### *Further information*

hygroscopic, inflammable; reductive; tends to polymerize;  
incompatible with various metals and various alloys.  
Explosible with air in a vaporous/gaseous state when heated.

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## 11. Toxicological information

### *Acute toxicity*

LC<sub>50</sub> (inhalation, rat): 0.578 mg/l /4 h (Formaldehyde).  
LD<sub>50</sub> (dermal, rabbit): 270 mg/kg (Formaldehyde).  
LD<sub>50</sub> (oral, rat): 100 mg/kg (Formaldehyde).

### *Specific symptoms in animal studies:*

Eye irritation test (rabbit): burns (Formaldehyde).  
Skin irritation test (rabbit): burns (Formaldehyde).

### *Subacute to chronic toxicity*

Applicable to partial component(s):

### *Sensitization:*

Sensitization test (guinea pig): positive.

The carcinogenic potential requires further clarification.

No impairment of reproductive performance in animal experiments.

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## *Further toxicological information*

Property that must be anticipated on the basis of the components of the preparation:

After inhalation: Irritations of the mucous membranes, coughing, and dyspnoea. Inhalation may lead to the formation of oedemas in the respiratory tract.

After skin contact: burns. Risk of skin sensitization. Danger of skin absorption.

After eye contact: burns. Lacrimal irritation due to vapours.

After swallowing: burns in mouth, throat, oesophagus and gastrointestinal tract. Risk of perforation in the oesophagus and stomach.

Systemic effects: narcosis, blindness.

Other notes:

The following applies to aldehydes in general: irritations after contact with eyes and skin. Mucosal irritations, coughing, and dyspnoea after inhalation.

The following applies to aliphatic alcohols in general: effect when product is not handled and used properly: mucosal irritations; after absorption of large quantities: narcosis.

## *Further data*

Further hazardous properties cannot be excluded.

This substance should be handled with particular care.

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## 12. Ecological information

The following statements refer to individual components of the preparation:

Abiotic degradation:

Rapid degradation. (air, formaldehyde)

Biologic degradation:

Biodegradation: 97.4 % /5 d (Formaldehyde). Readily biodegradable.

Behavior in environmental compartments:

Distribution: log p(o/w): 0.00 (Formaldehyde).

No bioaccumulation is to be expected (log P(o/w) <1).

Ecotoxic effects:

Biological effects:

Toxic for aquatic organisms. protoplasmatic toxin. Caustic even in diluted form. Disinfectant effect. Toxic effect on fish and plankton.

Sludge decomposition impaired or not possible even in diluted concentration.

Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities.

Fish toxicity: P.promelas LC<sub>50</sub>: 24 mg/l /96 h (Formaldehyde); Br.rerio LC<sub>50</sub>: 41 mg/l /96 h (Formaldehyde);

Daphnia toxicity: Daphnia magna EC<sub>50</sub>: ~2 mg/l /48 h (Formaldehyde);

Bacterial toxicity: Photobacterium phosphoreum EC<sub>50</sub>: 8.5 mg/l /30 min (Formaldehyde).

Maximum permissible toxic concentration: Algal toxicity: Sc.quadricauda IC<sub>5</sub>: 2.5 mg/l /8 d (Formaldehyde); Bacterial toxicity: M.aeruginosa EC<sub>5</sub>: 0.39 mg/l /8 d (Formaldehyde).

Further ecologic data:

COD: 1.06 g/g (Formaldehyde); TOD: 1.068 g/g (Formaldehyde)

Do not allow to enter waters, waste water, or soil!

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## 13. Disposal considerations

### *Product:*

Chemicals must be disposed of in compliance with the respective national regulations. Under [www.retrologistik.de](http://www.retrologistik.de) you will find country- and substance-specific information as well as contact partners.

### *Packaging:*

Merck product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system. Under [www.retrologistik.de](http://www.retrologistik.de) you will find special information on the respective national conditions as well as contact partners.

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## 14. Transport information

Road & Rail ADR, RID

UN 3316 CHEMIE-TESTSATZ, 9, III

Inland waterway ADN, ADNR not tested

Sea IMDG-Code

UN 3316 CHEMICAL KIT, 9, III

Ems F-A S-P

Air CAO, PAX

CHEMICAL KIT, 9, UN 3316, III

The transport regulations are cited according to international regulations and in the form applicable in Germany. Possible national deviations in other countries are not considered.  
**THESE TRANSPORT DATA APPLY TO THE ENTIRE PACK !**

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## 15. Regulatory information

### *Labelling according to EC Directives*

Symbol:	T	Toxic
R-phrases:	23/24/25-34-39/23/24/25-40-43	Toxic by inhalation, in contact with skin and if swallowed. Causes burns. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. Limited evidence of a carcinogenic effect. May cause sensitization by skin contact.
S-phrases:	26-36/37/39-45	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
contains:	Formaldehyde methanol	

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## *German regulations*

Water pollution class 2 (polluting substance) VwVwS Anh. 4

Storage class VCI 6.1 A

Data sheet of the Chemical Professional Association M010 Formaldehyde

M004 Irritant substances/corrosive substances

M051 Dangerous chemical substances

Local regulations on chemical accidents: 2

The employment restrictions for young workers in accordance with section 22 of the Youth Employment Protection Law (JArbSchG) are to be observed.

The employment restrictions for expectant and nursing mothers in accordance with sections 4 and 5 of the Maternity Protection Guideline (MuSchRiV) are to be observed.

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## **16. Other information**

Text of any R phrases referred to under heading 2:

- 11 Highly flammable.
- 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- 34 Causes burns.
- 39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
- 40 Limited evidence of a carcinogenic effect.
- 43 May cause sensitization by skin contact.

Reduced labelling on the container due to small quantity.

### *Reason for alteration*

Chapter 14: transport information.

General update.

### *Contact for information:*

HSSE-C/CI \* Tel: +49 (0)6151/722775 \* Fax: +49 (0)6151/726433 \* e-mail:prodsafe@merck.de

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*The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.*



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## 1. Identification of the substance/preparation and of the company/undertaking

### Identification of the product

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Product name: Potassium Cell Test Method: photometric 5.0 - 50.0 mg/l K 25  
Tests Spectroquant®  
K-2K

### Use of the substance/preparation

Reagent for analysis

### Company/undertaking identification

Company: Merck KGaA \* 64271 Darmstadt \* Germany \* Tel: +49 (0)6151/72-0  
Emergency telephone No.: +49 (0)6151/72112 \* Fax: +49 (0)6151/72-7780

## 2. Composition/information on ingredients

CAS-No.: 143-66-8  
*M*: 342.23 g/mol  
Formula Hill: C<sub>24</sub>H<sub>20</sub>BNa  
Chemical formula: Na[B(C<sub>6</sub>H<sub>5</sub>)<sub>4</sub>]  
EC-No.: 205-605-5

## 3. Hazards identification

Harmful if swallowed.

## 4. First aid measures

After inhalation: fresh air. Consult doctor if feeling unwell.  
After skin contact: wash off with plenty of water. Remove contaminated clothing.  
After eye contact: rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist if necessary.  
After swallowing: immediately make victim drink plenty of water. Call in physician.

## 5. Fire-fighting measures

Suitable extinguishing media:  
powder, water, foam.

Special risks:  
Combustible. Development of hazardous combustion gases or vapours possible in the event of fire.

Special protective equipment for fire fighting:  
Do not stay in dangerous zone without self-contained breathing apparatus.

Other information:  
Prevent fire-fighting water from entering surface water or groundwater.

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## 6. Accidental release measures

Person-related precautionary measures:  
Avoid generation of dusts; do not inhale dusts.

Environmental-protection measures:  
Do not allow to enter sewerage system.

Procedures for cleaning / absorption:  
Take up dry. Forward for disposal. Clean up affected area.

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## 7. Handling and storage

*Handling:*

No further requirements.

*Storage:*

Tightly closed in a well-ventilated place. Accessible only for authorised persons. Dry. At +15°C to +25°C.

The data apply to the entire pack.

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## 8. Exposure controls/personal protection

*Personal protective equipment:*

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory protection: required when dusts are generated.

Eye protection: required

Hand protection: In full contact:  
Glove material: nitrile rubber  
Layer thickness: 0.11 mm  
Breakthrough time: > 480 Min.  
In splash contact:  
Glove material: nitrile rubber  
Layer thickness: 0.11 mm  
Breakthrough time: > 480 Min.

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374, for example KCL 740 Dermatril® (full contact), 740 Dermatril® (splash contact). The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

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K-2K

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Industrial hygiene:  
Change contaminated clothing. Application of skin- protective barrier cream recommended. Wash hands after working with substance.

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## 9. Physical and chemical properties

Form:	solid	
Colour:	white	
Odour:	phenol-like	
pH value		not available
Melting point		not available
Boiling point		not available
Ignition temperature		not available
Flash point		not available
Explosion limits	lower	not available
	upper	not available
Density		not available
Solubility in water	(20 °C)	soluble

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## 10. Stability and reactivity

*Conditions to be avoided*

Strong heating.

*Substances to be avoided*

no information available

*Hazardous decomposition products*

no information available

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## 11. Toxicological information

*Acute toxicity*

LD<sub>50</sub> (oral, rat): 288 mg/kg.

*Further toxicological information*

After swallowing: Possible damages: loss of weight, muscular weakness.  
No description of any further symptoms is available.

*Further data*

Further hazardous properties cannot be excluded.  
The product should be handled with the care usual when dealing with chemicals.

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## 12. Ecological information

Ecotoxic effects:  
Biological effects:  
Daphnia toxicity: Daphnia magna LC<sub>50</sub>: 32 mg/l /48 h.

Further ecologic data:  
Do not allow to enter waters, waste water, or soil!

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## 13. Disposal considerations

*Product:*

Chemicals must be disposed of in compliance with the respective national regulations. Under [www.retrologistik.de](http://www.retrologistik.de) you will find country- and substance-specific information as well as contact partners.

*Packaging:*

Merck product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system. Under [www.retrologistik.de](http://www.retrologistik.de) you will find special information on the respective national conditions as well as contact partners.

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## 14. Transport information

Road & Rail ADR, RID  
UN 3316 CHEMIE-TESTSATZ, 9, III

Inland waterway ADN, ADNR not tested

Sea IMDG-Code  
UN 3316 CHEMICAL KIT, 9, III  
Ems F-A S-P

Air CAO, PAX  
CHEMICAL KIT, 9, UN 3316, III

The transport regulations are cited according to international regulations and in the form applicable in Germany. Possible national deviations in other countries are not considered.  
**THESE TRANSPORT DATA APPLY TO THE ENTIRE PACK !**

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## 15. Regulatory information

*Labelling according to EC Directives*

Symbol:	Xn	Harmful
R-phrases:	22	Harmful if swallowed.
S-phrases:	---	
contains:	sodium tetraphenylborate	

*German regulations*

Water pollution class	2	(polluting substance) VwVwS Anh. 3
Storage class VCI	10-13	
Data sheet of the Chemical Professional Association	M050 Dealing with harmful substances	

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The employment restrictions for young workers in accordance with section 22 of the Youth Employment Protection Law (JArbSchG) are to be observed.

The employment restrictions for expectant and nursing mothers in accordance with sections 4 and 5 of the Maternity Protection Guideline (MuSchRiV) are to be observed.

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## 16. Other information

### *Reason for alteration*

Chapter 14: transport information.

General update.

### *Contact for information:*

HSSE-C/CI \* Tel: +49 (0)6151/722775 \* Fax: +49 (0)6151/726433 \* e-mail:prodsafe@merck.de

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*The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.*

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Tests Spectroquant®  
Reaktionsküvette

### Use of the substance/preparation

Reagent for analysis

### Company/undertaking identification

Company: Merck KGaA \* 64271 Darmstadt \* Germany \* Tel: +49 (0)6151/72-0  
Emergency telephone No.: +49 (0)6151/72112 \* Fax: +49 (0)6151/72-7780

## 2. Composition/information on ingredients

Aqueous solution of organic compounds.

### Hazardous ingredients:

#### Name according to EC Directives:

CAS-No.	EC No.	EC-Index-No.	Classification	Content:
64-02-8	200-573-9		Xn; R22 Xi; R36 R52/53	≥ 1 - < 10 %

(Full text of R-Phrases in heading 16)

## 3. Hazards identification

No hazardous product as specified in Directive 67/548/EEC.

## 4. First aid measures

After inhalation: fresh air.  
After skin contact: wash off with plenty of water. Remove contaminated clothing.  
After eye contact: rinse out with plenty of water with the eyelid held wide open.  
After swallowing: immediately make victim drink plenty of water. Call in physician.

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## 5. Fire-fighting measures

Suitable extinguishing media:  
In adaption to materials stored in the immediate neighbourhood.

Special risks:  
Non-combustible.

Other information:  
Prevent fire-fighting water from entering surface water or groundwater.

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## 6. Accidental release measures

Person-related precautionary measures:  
Do not inhale vapours/aerosols.

Environmental-protection measures:  
Do not allow to enter sewerage system.

Procedures for cleaning / absorption:  
Take up with liquid-absorbent material (e.g. Chemizorb® ). Forward for disposal. Clean up affected area.

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## 7. Handling and storage

*Handling:*

No further requirements.

*Storage:*

Tightly closed in a well-ventilated place. Accessible only for authorised persons. At +15°C to +25°C.

The data apply to the entire pack.

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## 8. Exposure controls/personal protection

*Personal protective equipment:*

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory protection: required when vapours/aerosols are generated.

Eye protection: required

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Hand protection: In full contact:  
Glove material: nitrile rubber  
Layer thickness: 0.11 mm  
Breakthrough time: > 480 Min.

In splash contact:  
Glove material: nitrile rubber  
Layer thickness: 0.11 mm  
Breakthrough time: > 480 Min.

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374, for example KCL 740 Dermatril® (full contact), 740 Dermatril® (splash contact).

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Industrial hygiene:

Change contaminated clothing. Application of skin- protective barrier cream recommended. Wash hands after working with substance.

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## 9. Physical and chemical properties

Form:	liquid
Colour:	colourless
Odour:	odourless
pH value	not available
Melting point	not available
Boiling point	not available
Ignition temperature	not available
Flash point	not available
Explosion limits	lower not available
	upper not available
Density	not available
Solubility in water	(20 °C) soluble

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## 10. Stability and reactivity

*Conditions to be avoided*

Strong heating.

*Substances to be avoided*

The generally known reaction partners of water.

*Hazardous decomposition products*

no information available

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---

## 11. Toxicological information

### *Acute toxicity*

Quantitative data on the toxicity of this product are not available.

### *Further toxicological information*

Property that must be anticipated on the basis from the components of the preparation:

After skin contact: Slight irritations.

After eye contact: Slight irritations.

### *Further data*

However, when the product is handled appropriately, hazardous effects are unlikely to occur. The product should be handled with the care usual when dealing with chemicals.

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## 12. Ecological information

Ecotoxic effects:

Quantitative data on the ecological effect of this product are not available.

Further ecologic data:

No ecological problems are to be expected when the product is handled and used with due care and attention.

---

## 13. Disposal considerations

### *Product:*

Chemicals must be disposed of in compliance with the respective national regulations. Under [www.retrologistik.de](http://www.retrologistik.de) you will find country- and substance-specific information as well as contact partners.

### *Packaging:*

Merck product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system. Under [www.retrologistik.de](http://www.retrologistik.de) you will find special information on the respective national conditions as well as contact partners.

---

## 14. Transport information

Road & Rail ADR, RID

UN 3316 CHEMIE-TESTSATZ, 9, III

Inland waterway ADN, ADNR not tested

Sea IMDG-Code

UN 3316 CHEMICAL KIT, 9, III

Ems F-A S-P

Air CAO, PAX

CHEMICAL KIT, 9, UN 3316, III

The transport regulations are cited according to international regulations and in the form applicable in Germany. Possible national deviations in other countries are not considered.

**THESE TRANSPORT DATA APPLY TO THE ENTIRE PACK !**

# Merck Safety Data Sheet

According to EC Directive 91/155/EEC

Catalogue No.: 114562  
Product name: Potassium Cell Test Method: photometric 5.0 - 50.0 mg/l K 25 Tests  
Spectroquant®  
Reaktionsküvette

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## 15. Regulatory information

*Labelling according to EC Directives*

Symbol: ---

R-phrases: ---

S-phrases: ---

*German regulations*

Water pollution class 1 (slightly polluting substance) VwVwS Anh. 4

Storage class VCI 10-13

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## 16. Other information

Text of any R phrases referred to under heading 2:

22 Harmful if swallowed.

36 Irritating to eyes.

52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

*Reason for alteration*

Chapter 14: transport information.

General update.

*Contact for information:*

HSSE-C/CI \* Tel: +49 (0)6151/722775 \* Fax: +49 (0)6151/726433 \* e-mail:prodsafe@merck.de

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*The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.*

# Safety Data Sheet

According to EC Directive 91/155/EEC

Date of issue: 23.04.2004  
Supersedes edition of 21.11.2000

## 1. Identification of the substance/preparation and of the company/undertaking

### *Identification of the product*

Catalogue No.: 114562  
Product name: Potassium Cell Test Method: photometric 5.0 - 50.0 mg/l K 25  
Tests Spectroquant®  
Blindwert-Simulationsreagenz

### *Use of the substance/preparation*

Reagent for analysis

### *Company/undertaking identification*

Company: Merck KGaA \* 64271 Darmstadt \* Germany \* Tel: +49 (0)6151/72-0  
Emergency telephone No.: +49 (0)6151/72112 \* Fax: +49 (0)6151/72-7780

## 2. Composition/information on ingredients

CAS-No.: 7732-18-5  
*M*: 18.02 g/mol  
Formula Hill: H<sub>2</sub>O  
EC-No.: 231-791-2

## 3. Hazards identification

No hazardous product as specified in Directive 67/548/EEC.

## 4. First aid measures

No special precautionary measures necessary.

## 5. Fire-fighting measures

Suitable extinguishing media:  
In adaption to materials stored in the immediate neighbourhood.

Special risks:  
none

## 6. Accidental release measures

Procedures for cleaning / absorption:  
Pour into drain.

# Merck Safety Data Sheet

According to EC Directive 91/155/EEC

Catalogue No.: 114562  
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## 7. Handling and storage

### *Handling:*

No further requirements.

### *Storage:*

Tightly closed in a well-ventilated place. Accessible only for authorised persons. At +15°C to +25°C.

The data apply to the entire pack.

---

## 8. Exposure controls/personal protection

### *Personal protective equipment:*

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory protection: not required

Eye protection: not required

Hand protection: not required

Industrial hygiene:  
not required

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## 9. Physical and chemical properties

Form:	liquid		
Colour:	colourless		
Odour:	odourless		
pH value	(20 °C)	neutral	
Viscosity dynamic	(20 °C)	0.952	mPa*s
Melting point		0	°C
Boiling point		100	°C
Ignition temperature		not applicable	
Flash point		not applicable	
Explosion limits	lower	not applicable	
	upper	not applicable	
Vapour pressure	(20 °C)	23	hPa
Density	(20 °C)	1.00	g/cm <sup>3</sup>
Solubility in ethanol	(20 °C)	soluble	

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## 10. Stability and reactivity

*Conditions to be avoided*

none

*Substances to be avoided*

The generally known reaction partners of water.

*Hazardous decomposition products*

none

*Further information*

none

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## 11. Toxicological information

*Acute toxicity*

No toxic effects are to be expected when the product is handled appropriately.

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## 12. Ecological information

not required

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## 13. Disposal considerations

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Symbol: ---

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*German regulations*

Storage class VCI 10-13

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## 16. Other information

*Reason for alteration*

Chapter 14: transport information.

General update.

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