

Safety Data Sheet

According to EC Directive 91/155/EEC

Date of issue: 30.04.2004 Supersedes edition of 11.06.1997

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

Identification of the product

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant®

Ph-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

Mixture of inorganic and organic compounds.

Synonyms

Phenol, determination

Hazardous ingredients:

Name according to EC Directives:

CAS-No. EC No. EC-Index-No. Classification Content:

3-Methyl-2-benzothiazolinone hydrazone hydrochloride

4338-98-1 224-393-5 T; R25 $\geq 3 - \langle 25\% \rangle$

(Full text of R-Phrases in heading 16)

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. After swallowing: immediately make victim drink plenty of water. Call in physician.

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Spectroquant®

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5. Fire-fighting measures

Suitable extinguishing media:

In adaption to materials stored in the immediate neighbourhood.

Special risks:

Preparation with combustible ingredients. Ambient fire may liberate hazardous vapours. The following may develop in event of fire: hydrochloric acid, sulfur oxides.

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.

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.

7. Handling and storage

Handling:

No further requirements.

Storage:

Tightly closed. At $+15^{\circ}$ C to $+25^{\circ}$ 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: required when dusts are generated.

Eye protection: required

According to EC Directive 91/155/EEC

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Spectroquant®

Ph-1K

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).

Industrial hygiene:

Change contaminated clothing. Wash hands after working with substance.

9. Physical and chemical properties

Form: solid
Colour: white
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 (25 °C) soluble

10. Stability and reactivity

Conditions to be avoided

Strong heating.

Substances to be avoided

not known to date

Hazardous decomposition products

in the event of fire: See chapter 5.

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant®

Ph-1K

11. Toxicological information

Acute toxicity

LD₅₀ (dermal, rabbit): 12300 mg/kg (toxicologically determinant component).

LD₅₀ (oral, rat): 149 mg/kg (toxicologically determinant component).

Further toxicological information

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

After inhalation of dust: slight irritation symptoms. Risk of absorption.

After skin contact: Slight irritations. After eye contact: Slight irritations.

After swallowing: We have no description of any toxic symptoms.

Property which cannot be excluded by analogy:

Systemic effects: gastrointestinal complaints, CNS disorders, cardiovascular disorders.

Further data

Further hazardous properties cannot be excluded.

The product should be handled with the care usual when dealing with chemicals.

12. Ecological information

Ecotoxic effects:

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

Further ecologic data:

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

13. Disposal considerations

Product:

Chemicals must be disposed of in compliance with the respective national regulations. Under 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 you will find special information on the respective national conditions as well as contact partners.

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant®

Ph-1K

14. Transport information

Road & Rail ADR, RID

UN 3316 CHEMIE-TESTSATZ, 9, II

Inland waterway ADN, ADNR not tested

Sea IMDG-Code

UN 3316 CHEMICAL KIT, 9, II

Ems F-A S-P

Air CAO, PAX

CHEMICAL KIT, 9, UN 3316, II

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!

15. Regulatory information

Labelling according to EC Directives

Symbol: Xn Harmful

R-phrases: 22 Harmful if swallowed.

S-phrases: ---

contains: 3-Methyl-2-benzothiazolinone hydrazone hydrochloride

German regulations

Water pollution class 3 (highly polluting substance) VwVwS Anh. 4

Storage class VCI 10-13

Data sheet of the Chemical Professional Association

M050 Dealing with harmful substances

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.

16. Other information

Text of any R phrases referred to under heading 2:

Toxic if swallowed.

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

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

 $Spectroquant \\ @$

Ph-1K

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: 30.04.2004 Supersedes edition of 11.06.1997

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Identification of the product

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Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

 $Spectroquant \\ \\ \mathbb{B}$

Reagenz Ph-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

Mixture of inorganic compounds.

Synonyms

Phenol, determination

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. After eye contact: rinse out with plenty of water.

After swallowing: make victim drink plenty of water. Consult doctor if feeling unwell.

5. Fire-fighting measures

Suitable extinguishing media:

In adaption to materials stored in the immediate neighbourhood.

Special risks:

Non-combustible. Ambient fire may liberate hazardous vapours.

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.

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant® Reagenz Ph-2K

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.

7. Handling and storage

Handling:

No further requirements.

Storage:

Tightly closed. At $+15^{\circ}$ C to $+25^{\circ}$ 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: 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).

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).

Industrial hygiene:

Change contaminated clothing. Wash hands after working with substance.

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant® Reagenz Ph-2K

9. Physical and chemical properties

Form: solid
Colour: yellow
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 (25 °C) soluble

10. Stability and reactivity

Conditions to be avoided

Heating.

Substances to be avoided

not known to date

Hazardous decomposition products

not known to date

11. Toxicological information

Acute toxicity

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

Further toxicological information

Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

Further data

The product should be handled with the care usual when dealing with chemicals.

12. Ecological information

Ecotoxic effects:

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

Further ecologic data:

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

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant® Reagenz Ph-2K

13. Disposal considerations

Product:

Chemicals must be disposed of in compliance with the respective national regulations. Under 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 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, II

Inland waterway ADN, ADNR not tested

Sea IMDG-Code

UN 3316 CHEMICAL KIT, 9, II

Ems F-A S-P

Air CAO, PAX

CHEMICAL KIT, 9, UN 3316, II

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!

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

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

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant® Reagenz Ph-2K

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: 30.04.2004 Supersedes edition of 11.06.1997

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

Identification of the product

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 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.

Synonyms

Phenol, determination

Hazardous ingredients:

Name according to EC Directives:

CAS-No. EC No. EC-Index-No. Classification Content:

Sulphuric acid

7664-93-9 231-639-5 016-020-00-8 C; R35 25 %

(Full text of R-Phrases in heading 16)

3. Hazards identification

Causes severe burns.

4. First aid measures

After inhalation: fresh air. Call in physician.

After skin contact: wash off with plenty of water. Dab with polyethylene glycol 400. Immediately remove contaminated clothing.

After eye contact: rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately call in ophtalmologist.

After swallowing: make victim drink plenty of water (if necessary several litres), avoid vomiting (risk of perforation!). Immediately call in physician. Do not attempt to neutralize.

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant® Reaktionsküvette

5. Fire-fighting measures

Suitable extinguishing media:

In adaption to materials stored in the immediate neighbourhood.

Special risks:

Non-combustible. Ambient fire may liberate hazardous vapours. The following may develop in event of fire: sulfur oxides.

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.

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.

Procedures for cleaning / absorption:

Take up with liquid-absorbent and neutralizing material (e.g. Chemizorb® H⁺, Art. No. 101595). Forward for disposal. Clean up affected area.

7. Handling and storage

Handling:

No further requirements.

Storage:

Tightly closed. At $+15^{\circ}$ C to $+25^{\circ}$ C.

The data apply to the entire pack.

8. Exposure controls/personal protection

Specific control parameter

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant® Reaktionsküvette

TRGS 900

Name Sulfuric acid
Kind of use others
Value 0.1 mg/m³

0.1 mg/m³ Inhalable fraction. The following regulation

applies to the peak limit: short-term exposure duration: max. 15 minutes as mean value, frequency per shift: 4, time interval: min. 1

hour

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).

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: 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).

Other protective equipment:

Acid-resistant protective clothing.

Industrial hygiene:

Change contaminated clothing and immerse in water. Apply skin-protective barrier cream. Wash hands and face after working with substance.

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant® Reaktionsküvette

9. Physical and chemical properties

Form: liquid
Colour: colourless
Odour: odourless

pH value $(20 \, ^{\circ}\text{C})$ ~ 1

Melting point not available
Boiling point ~ 103 °C
Ignition temperature not available
Flash point not available
Explosion limits lower not available
upper not available

 $(20 \, ^{\circ}\text{C})$ 1.18 g/cm³

Density (20 °

Solubility in

water (20 °C) soluble (development of heat)

10. Stability and reactivity

Conditions to be avoided

Strong heating.

Substances to be avoided

water, alkali metals, alkali compounds, ammonia, alkaline earth metals, alkaline earth compounds, alkalis, acids, metals, metal alloys, phosphorus, phosphorus oxides, hydrides, halogen-halogen compounds, oxyhalogenic compounds, permanganates, nitrates, carbides, combustible substances, organic solvents, acetylidene, nitriles, organic nitro compounds, anilines, peroxides, picrates, nitrides, lithium silicide.

Hazardous decomposition products

in the event of fire: See chapter 5.

Further information

hygroscopic; has a corrosive effect;

incompatible with metals, animal/vegetable tissues. Hydrogen may form upon contact with metals

(danger of explosion!).

11. Toxicological information

Acute toxicity

 LC_{50} (inhalation, rat): 510 $\mbox{mg/m}^3$ /2 h (calculated on the pure substance).

LD₅₀ (oral, rat): 2140 mg/kg.

Specific symptoms in animal studies: Eye irritation test (rabbit): burns. Skin irritation test (rabbit): burns.

Toxicologic values are not available due to other dangerous properties of the substance.

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant® Reaktionsküvette

Subacute to chronic toxicity

Bacterial mutagenicity: Ames test: negative. No teratogenic effect in animal experiments.

Further toxicological information

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

After inhalation of vapours/aerosols: damage to the affected mucous membranes.

After skin contact: severe burns with formation of scabs.

After eye contact: burns, corneal lesions.

After swallowing: severe pain (risk of perforation!), nausea, vomiting, and diarrhoea.

After a latency period of several weeks possibly pyloric stenosis.

Further data

The product should be handled with the care usual when dealing with chemicals.

12. Ecological information

Biologic degradation:

Methods for the determination of biodegradability are not applicable to inorganic substances.

Behavior in environmental compartments:

Concentration in organisms is not to be expected.

Ecotoxic effects:

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

Further ecologic data:

The following applies to sulfuric acid: biological effects: harmfull effect on aquatic organisms. Harmful effect due to pH shift. Toxic effect on fish and algae. Caustic even in diluted form. Does not cause biological oxygen deficit. Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities. Neutralization possible in waste water treatment plants.

Daphnia toxicity: Daphnia magna EC_{50} : 29 mg/1/24 h (calculated on the pure substance).

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

13. Disposal considerations

Product:

Chemicals must be disposed of in compliance with the respective national regulations. Under 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 you will find special information on the respective national conditions as well as contact partners.

According to EC Directive 91/155/EEC

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Spectroquant® Reaktionsküvette

14. Transport information

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

Inland waterway ADN, ADNR not tested

Sea IMDG-Code

UN 3316 CHEMICAL KIT, 9, II

Ems F-A S-P

Air CAO, PAX

CHEMICAL KIT, 9, UN 3316, II

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!

15. Regulatory information

Labelling according to EC Directives

Symbol: C Corrosive

R-phrases: 35 Causes severe burns.

S-phrases: 26-36/37/39-45 In case of contact with eyes, rinse imme

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: Sulphuric acid

German regulations

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

Storage class VCI 8 B

Data sheet of the Chemical Professional Association

M004 Irritant substances/corrosive substances

M051 Dangerous chemical substances

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

16. Other information

Text of any R phrases referred to under heading 2:

35 Causes severe burns.

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant® Reaktionsküvette

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

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

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

Identification of the product

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant®

Blindküvette

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.

Synonyms

Phenol, determination

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 under running water.

After eye contact: rinse out with water.

After swallowing (large amounts): consult doctor if feeling unwell.

5. Fire-fighting measures

Suitable extinguishing media:

In adaption to materials stored in the immediate neighbourhood.

Special risks:

Non-combustible.

6. Accidental release measures

Person-related precautionary measures:

Do not inhale vapours/aerosols.

Procedures for cleaning / absorption:

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

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant® Blindküvette

7. Handling and storage

Handling:

No further requirements.

Storage:

Tightly closed. At $+15^{\circ}$ C to $+25^{\circ}$ 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: required when vapours/aerosols 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)

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).

Industrial hygiene:

Change contaminated clothing. Wash hands after working with substance.

9. Physical and chemical properties

Form: liquid
Colour: pink
Odour: odourless

pH value $(20 \,^{\circ}\text{C})$ ~ 7

Melting point not available
Boiling point not available

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant® Blindküvette

Ignition temperature not available
Flash point not available
Explosion limits lower not available
upper not available

Density (20 °C) ~ 1.00 g/cm³ Solubility in Water not available

10. Stability and reactivity

Conditions to be avoided

none

Substances to be avoided

The generally known reaction partners of water.

Hazardous decomposition products

none

11. Toxicological information

Acute toxicity

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

Further toxicological information

Due to the low concentration of the components contained in this product, risks are relatively improbable.

Further data

The product should be handled with the care usual when dealing with chemicals.

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 you will find country- and substance-specific information as well as contact partners.

According to EC Directive 91/155/EEC

Catalogue No.: 114551

Product name: Phenol Cell Test Method: photometric 0.10 - 2.50 mg/l 25 Tests

Spectroquant® Blindküvette

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 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, II

Inland waterway ADN, ADNR not tested

Sea IMDG-Code

UN 3316 CHEMICAL KIT, 9, II

Ems F-A S-P

Air CAO, PAX

CHEMICAL KIT, 9, UN 3316, II

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!

15. Regulatory information

Labelling according to EC Directives

Symbol: --R-phrases: --S-phrases: ---

German regulations

Water pollution class nwg (nonpolluting substance) VwVwS Anh. 4

Storage class VCI 10-13

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

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.