# Safety Data Sheet

According to EC Directive 91/155/EEC

Date of issue: 15.04.2004
Supersedes edition of 29.03.2001

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

*Identification of the product*

Catalogue No.: 114730

Product name: Chloride Cell Test Method: photometric 5 - 125 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 of inorganic compounds.

*Hazardous ingredients:*

*Name according to EC Directives:*

| *CAS-No.* | *EC No.* | *EC-Index-No.* | *Classification* | *Content:* |
|---|---|---|---|---|
| Nitric acid<br>7697-37-2 | 231-714-2 | 007-004-00-1 | O; R8<br>C; R35 | ≥ 1 - < 5 % |
| Iron(III) nitrate<br>10421-48-4 | 233-899-5 | | O; R8<br>Xi; R36/38 | ≥ 1 - < 10 % |

(Full text of R-Phrases in heading 16)

## 3. Hazards identification

Irritating to eyes and skin.

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

## 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. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

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

## 6. Accidental release measures

Person-related precautionary measures:
Avoid substance contact. Do not inhale vapours/aerosols. 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 in a well-ventilated place. Accesible only for authorised persons. At +15˚C to +25˚C.

The data apply to the entire pack.

## 8. Exposure controls/personal protection

*Specific control parameter*

TRGS 900

| | |
|---|---|
| Name | Nitric acid |
| Value | 2 ml/$m^3$ |
| | 5.2 mg/$m^3$ |
| Peak limit | =1= Concentration must not exceed limit concentration. |

*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. Apply skin-protective barrier cream. Wash hands after working with substance.

## 9. Physical and chemical properties

| | | | |
|---|---|---|---|
| Form: | | liquid | |
| Colour: | | yellow-brown | |
| Odour: | | odourless | |
| pH value | | (20 ˚C) | ~ 1 |
| Melting point | | | not available |
| Boiling point | | | not available |
| Ignition temperature | | | not available |
| Flash point | | | not applicable |
| Explosion limits | lower | | not available |
| | upper | | not available |
| Density | | (20 ˚C) | ~ 1.03 g/cm$^3$ |
| Solubility in water | | (20 ˚C) | soluble |

## 10. Stability and reactivity

*Conditions to be avoided*

Strong heating.

*Substances to be avoided*

metals.

*Hazardous decomposition products*

no information available

## 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 inhalation: Irritations of the mucous membranes, coughing, and dyspnoea.
After skin contact: Irritations.
After eye contact: Irritations.
After swallowing: irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Other notes:
The following applies to soluble iron compounds: nausea and vomiting after swallowing. The absorption of large quantities is followed by cardiovascular disorders. Toxic effect on liver and kidneys.

The following applies to nitrites/nitrates in general: methaemoglobinaemia after the uptake of large quantities.

*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:
The following applies to dissolved iron compounds in general: fish: toxic as from 0.9 mg/l at pH 6.5-7.5; lethal as from 1 mg/l at pH 5.5-6.7; 50 mg/l iron upper limit for fish life.
When iron ions flocculate in an alkaline medium, mechanical damage occurs in aquatic organisms.

The following applies to nitrates in general: may contribute to the eutrophication of water supplies.
Hazard for drinking water. Fish: $LC_{50}$ > 500 mg/l.

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.

*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, 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 !

## 15. Regulatory information

*Labelling according to EC Directives*

| | | |
|---|---|---|
| Symbol: | Xi | Irritant |
| R-phrases: | --- | |
| S-phrases: | --- | |

*German regulations*

| | | |
|---|---|---|
| Water pollution class | 1 | (slightly polluting substance) VwVwS Anh. 4 |
| Storage class VCI | 10-13 | |
| Data sheet of the Chemical Professional Association | M004 | Irritant substances/corrosive substances |
| | M014 | Nitric acid/ nitric oxides |
| | 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.

Catalogue No.: 114730
Product name: Chloride Cell Test Method: photometric 5 - 125 mg/l 25 Tests
Spectroquant®
Reaktionsküvette

## 16. Other information

Text of any R phrases referred to under heading 2:

| | |
|---|---|
| 8 | Contact with combustible material may cause fire. |
| 35 | Causes severe burns. |
| 36/38 | Irritating to eyes and skin. |

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

# Safety Data Sheet

According to EC Directive 91/155/EEC

Date of issue: 15.04.2004
Supersedes edition of 29.03.2001

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

*Identification of the product*

Catalogue No.: 114730

Product name: Chloride Cell Test Method: photometric 5 - 125 mg/l 25 Tests Spectroquant®

Cl-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

Preparation contains inorganic and organic compounds.

The percent content of the mercury compound mentioned below refers to the amount of the pure mercury therein.

*Hazardous ingredients:*

*Name according to EC Directives:*

| *CAS-No.* | *EC No.* | *EC-Index-No.* | *Classification* | *Content:* |
|---|---|---|---|---|
| Mercury(II) thiocyanate | | | | |
| 592-85-8 | 209-773-0 | 080-002-00-6 | T+; R26/27/28<br>R33<br>N; R50/53 | ≥ 0.5 - < 2 % |
| methanol | | | | |
| 67-56-1 | 200-659-6 | 603-001-00-X | F; R11<br>T; R23/24/25-39/23/24/25 | ≥ 0.1 - < 3 % |

(Full text of R-Phrases in heading 16)

## 3. Hazards identification

Toxic by inhalation, in contact with skin and if swallowed. Danger of cumulative effects. Irritating to eyes and skin. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 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. Dab with polyethylene glycol 400. Immediately remove contaminated clothing. Immediately call in physician.
After eye contact: rinse out with plenty of water with the eyelid held wide open. Call in ophtalmologist.
After swallowing: make victim drink plenty of water, induce vomiting. Immediately call in physician. Clean skin of vomit.

## 5. Fire-fighting measures

Suitable extinguishing media:
powder, water, foam.

Special risks:
Combustible. Vapours heavier than air. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire. 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:
Prevent fire-fighting water from entering surface water or groundwater. Contain escaping vapours with water.

## 6. Accidental release measures

Person-related precautionary measures:
Avoid substance contact. Do not inhale vapours/aerosols. 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 material (e.g. Chemizorb® ). Forward for disposal. Clean up affected area.

## 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.

## 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 |

| | |
|---|---|
| Name | Mercury, metallic and inorganic compounds |
| Parametr | Mercury |
| Values | 25 µg/l |
| Test material | blood |
| test extraction, time | a |

| | |
|---|---|
| Parametr | Mercury |
| Values | 100 µg/l |
| Test material | urine |
| test extraction, time | a |

TRGS 900

| | |
|---|---|
| Name | Methanol |
| Value | 200 ml/m$^3$<br>270 mg/m$^3$ |
| 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 |
| Name | Mercury (inorganic mercury compounds) |
| Value | 0.1 mg/m$^3$ inhalable fraction. The limit refers to the metal content as the analytical calculation basis. |
| Peak limit | 4 exceeding factor: 4-fold in 15 minutes |
| Skin resorption | Risk of skin absorption |
| Name | Dimethyl sulfoxide |
| Value | 160 mg/m$^3$ |
| Skin resorption | Risk of skin absorption |

*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: | > 120 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).
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: Suitable protective clothing.

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.

Catalogue No.: 114730
Product name: Chloride Cell Test Method: photometric 5 - 125 mg/l 25 Tests Spectroquant®
Cl-1K

## 9. Physical and chemical properties

| | | | |
|---|---|---|---|
| Form: | | liquid | |
| Colour: | | colourless | |
| Odour: | | characteristic | |
| pH value | | | not applicable |
| 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 | | (20 ˚C) | ~ 1.10 g/cm$^3$ |
| Solubility in | | | not determined |

## 10. Stability and reactivity

*Conditions to be avoided*

Strong heating.

*Substances to be avoided*

alkali metals, hydrides, nitrates, halogen-halogen compounds, perchloric acid, perchlorates, chlorates, nonmetallic oxyhalides, oxyhalogenic compounds, acid halides, nitrogen oxides, sulfur oxides, strong oxidizing agents.

*Hazardous decomposition products*

in the event of fire: See chapter 5.

*Further information*

incompatible with various plastics, metals (in the presence of atmospheric oxygen and/or moisture). Explosible with air in a vaporous/gaseous state when heated.

## 11. Toxicological information

*Acute toxicity*

$LD_{50}$ (oral, rat): 46 mg/kg (toxicologically determinant component).

*Further toxicological information*

Property that must be anticipated on the basis from the components of the preparation:
After skin contact: Irritations. Danger of skin absorption.
After eye contact: Irritations.
Possible symptoms: After uptake: CNS disorders, nausea, tiredness, headache.

Mercury compounds have a cytotoxic and protoplasmatoxic effect. Intoxication symptoms: acute: contact with eye causes severe lesions. Swallowing and inhalation of dusts damages mucous membranes of gastrointestinal and respiratory tract (metallic taste, nausea, vomiting, abdominal pain, bloody diarrhoea, intestinal burns, glottal oedema, aspiration pneumonia); drop in blood pressure, cardiac dysrhythmia, circulatory collapse, and renal failure; chronic: inflammation of the mouth with loss of teeth and mercurial line. The principal signs manifest themselves in the CNS (impaired speech, visiion, hearing, and sensitivity, loss of memory, irritability, hallucinations, delirium inter alia).
Possible damages: Damage of: liver, kidneys.

Danger of cumulative effects.

*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.

Biological effects:
Harmfull effect on aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Further ecologic data:
The following applies to the water-soluble matter contained in inorganic Hg compounds in general (tested with mercury(II) chloride): Leuciscus idus $LC_{50}$: 0.5 mg/l (48h), Daphnia magna $EC_{50}$: 0.005-3,6 mg/l (48h), Chlorella pyrenoidosa $EC_{50}$: 0.3 mg/l (5h), Pseudomonas fluorescens $IC_{50}$: 0.005 mg/l. The toxicity of mercury(II) ions for water organisms depends on the water hardness [source: IPCS].

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.

## 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 !

## 15. Regulatory information

*Labelling according to EC Directives*

| | | |
|---|---|---|
| Symbol: | T | Toxic |
| R-phrases: | 23/24/25-33-52/53 | Toxic by inhalation, in contact with skin and if swallowed. Danger of cumulative effects. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| S-phrases: | 36/37-45 | Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |
| contains: | Mercury(II) thiocyanate | |

*German regulations*

| | |
|---|---|
| Water pollution class | 2 (polluting substance) VwVwS Anh. 4 |
| Storage class VCI | 6.1 B |
| Data sheet of the Chemical Professional Association | M024 Mercury and its compounds |
| | M017 Solvents |
| | 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.

Catalogue No.: 114730
Product name: Chloride Cell Test Method: photometric 5 - 125 mg/l 25 Tests
Spectroquant®
Cl-1K

## 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. |
| 26/27/28 | Very toxic by inhalation, in contact with skin and if swallowed. |
| 33 | Danger of cumulative effects. |
| 39/23/24/25 | Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. |
| 50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

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

# Safety Data Sheet

According to EC Directive 91/155/EEC

Date of issue: 15.04.2004
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## 1. Identification of the substance/preparation and of the company/undertaking

*Identification of the product*

Catalogue No.: 114730

Product name: Chloride Cell Test Method: photometric 5 - 125 mg/l 25 Tests Spectroquant®

Packungsblindküvette

*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.

## 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 (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.

## 7. Handling and storage

*Handling:*

No further requirements.

*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.

## 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:
Wash hands after working with substance.

## 9. Physical and chemical properties

| | |
|---|---|
| Form: | liquid |
| Colour: | pink |
| Odour: | odourless |

| | |
|---|---|
| pH value | not available |
| Melting point | not available |

| | | | | |
|---|---|---|---|---|
| Boiling point | | | ~ 100 | ˚C |
| Ignition temperature | | | not available | |
| Flash point | | | not available | |
| Explosion limits | lower | | not available | |
| | upper | | not available | |
| Density | | (20 ˚C) | 1.00 | g/cm$^3$ |
| Solubility in water | | (25 ˚C) | freely soluble | |

## 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*

No first-hand knowledge of hazardous properties.

*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.

*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, 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 !

## 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.*