



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 04.06.2013

Version 10.2

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

### 1.1 Product identifier

Catalogue No. 110044  
Product name Cyanide Test Method: colorimetric with test strips and reagents 1 - 3 - 10 - 30 mg/l CN<sup>-</sup> MQuant™

CN-1

REACH Registration Number This product is a mixture. REACH Registration Number see section 3.

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

Identified uses Reagent for analysis  
For additional information on uses please refer to the Merck Chemicals portal ([www.merck-chemicals.com](http://www.merck-chemicals.com)).

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

Company Merck KGaA \* 64271 Darmstadt \* Germany \* Phone:+49 6151 72-0  
Responsible Department EQ-RS \* e-mail: [prodsafe@merckgroup.com](mailto:prodsafe@merckgroup.com)

1.4 Emergency telephone number Please contact the regional company representation in your country.

## SECTION 2. Hazards identification

### 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2, H315

Eye irritation, Category 2, H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification (67/548/EEC or 1999/45/EC)

Xi Irritant R36/38

For the full text of the R-phrases mentioned in this Section, see Section 16.

### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word  
Warning

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*Hazard statements*

H315 Causes skin irritation.  
H319 Causes serious eye irritation.

*Precautionary statements*

Response  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.


**Reduced labelling (≤125 ml)**

*Hazard pictograms*



*Signal word*  
Warning

**Labelling (67/548/EEC or 1999/45/EC)**

*Symbol(s)*  Xi Irritant

*R-phrases(s)* 36/38 Irritating to eyes and skin.

**Reduced labelling (≤125 ml)**

*Symbol(s)*  Xi Irritant

**2.3 Other hazards**

None known.

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**SECTION 3. Composition/information on ingredients**

Chemical nature Mixture of inorganic compounds

**3.1 Substance**

not applicable

**3.2 Mixture**

**Hazardous components (REGULATION (EC) No 1272/2008)**

*Chemical Name (Concentration)*

CAS-No.	Registration number	Classification
tri-sodium phosphate (>= 25 % - < 50 % )		
7601-54-9	01-2119489800-32-XXXX	Eye irritation, Category 2, H319 Skin irritation, Category 2, H315

For the full text of the H-Statements mentioned in this Section, see Section 16.

**Hazardous components (1999/45/EC)**

*Chemical Name (Concentration)*

CAS-No.	Classification
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tri-sodium phosphate ( $\geq 25\%$  -  $< 50\%$ )  
7601-54-9 Xi, Irritant; R36/38

For the full text of the R-phrases mentioned in this Section, see Section 16.

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## SECTION 4. First aid measures

### 4.1 Description of 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. Call in ophthalmologist.

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

### 4.2 Most important symptoms and effects, both acute and delayed

irritant effects, Cough, Shortness of breath

### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.

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## SECTION 5. Firefighting measures

### 5.1 Extinguishing media

*Suitable extinguishing media*

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

*Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

### 5.2 Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapours.

Fire may cause evolution of:

Oxides of phosphorus

### 5.3 Advice for firefighters

*Special protective equipment for firefighters*

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

*Further information*

Prevent fire extinguishing water from contaminating surface water or the ground water system.

Suppress (knock down) gases/vapours/mists with a water spray jet.

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## SECTION 6. Accidental release measures

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

Advice for non-emergency personnel: Avoid substance contact. Avoid inhalation of dusts. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

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### 6.2 Environmental precautions

Do not empty into drains.

### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

### 6.4 Reference to other sections

Indications about waste treatment see section 13.

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## SECTION 7. Handling and storage

### 7.1 Precautions for safe handling

#### *Advice on safe handling*

Observe label precautions.

#### *Hygiene measures*

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

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

#### *Storage conditions*

Tightly closed. Keep in a well-ventilated place. Keep away from heat and sources of ignition.

Store at +15°C to +25°C.

The data applies to the entire pack.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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## SECTION 8. Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

#### **Engineering measures**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

#### **Individual protection measures**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

#### *Eye/face protection*

Safety glasses

#### *Hand protection*

full contact:

Glove material:

Nitrile rubber

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splash contact:

Glove thickness:	0,11 mm
Break through time:	> 480 min
Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

This recommendation applies only to the product stated in the safety data sheet(>,<)> supplied by us and for the designated use. 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)).

*Other protective equipment*  
protective clothing

*Respiratory protection*

required when dusts are generated.

Recommended Filter type: Filter P 1 (acc. to DIN 3181) for solid particles of inert substances

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Environmental exposure controls**

Do not empty into drains.

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**SECTION 9. Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

Form	solid
Colour	off-white
Odour	odourless
Odour Threshold	not applicable
pH	ca. 7 at 10 g/l 20 °C
Melting point	No information available.
Boiling point	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.

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Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.
Relative vapour density	No information available.
Relative density	No information available.
Water solubility	at 20 °C soluble
Partition coefficient: n- octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none

**9.2 Other data**

none

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**SECTION 10. Stability and reactivity**

**10.1 Reactivity**

See section 10.3

**10.2 Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature) .

**10.3 Possibility of hazardous reactions**

no information available

**10.4 Conditions to avoid**

no information available

**10.5 Incompatible materials**

no information available

**10.6 Hazardous decomposition products**

no information available

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## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

#### *Acute oral toxicity*

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

#### *Acute inhalation toxicity*

Symptoms: Possible damages: Irritation symptoms in the respiratory tract.

#### *Acute dermal toxicity*

This information is not available.

#### *Skin irritation*

Mixture causes skin irritation.

#### *Eye irritation*

Mixture causes serious eye irritation.

#### *Sensitisation*

This information is not available.

#### *Germ cell mutagenicity*

This information is not available.

#### *Carcinogenicity*

This information is not available.

#### *Reproductive toxicity*

This information is not available.

#### *Teratogenicity*

This information is not available.

#### *Specific target organ toxicity - single exposure*

This information is not available.

#### *Specific target organ toxicity - repeated exposure*

This information is not available.

#### *Aspiration hazard*

This information is not available.

### 11.2 Further information

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

Further data:

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

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## SECTION 12. Ecological information

### 12.1 Toxicity

No information available.

### 12.2 Persistence and degradability

No information available.

### 12.3 Bioaccumulative potential

No information available.

### 12.4 Mobility in soil

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No information available.

**12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

**12.6 Other adverse effects**

*Additional ecological information*

Further information on ecology

Depending on the concentration, phosphates may contribute to the eutrophication of water supplies.

Discharge into the environment must be avoided.

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**SECTION 13. Disposal considerations**

*Waste treatment methods*

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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**14. Transport information**

**Land transport (ADR/RID)**

14.1 UN number UN 3316  
14.2 Proper shipping name CHEMICAL KIT  
14.3 Class 9  
14.4 Packing group III  
14.5 Environmentally hazardous --  
14.6 Special precautions for user yes  
Tunnel restriction code E

**Inland waterway transport (ADN)**

Not relevant

**Air transport (IATA)**

14.1 UN number UN 3316  
14.2 Proper shipping name CHEMICAL KIT  
14.3 Class 9  
14.4 Packing group III  
14.5 Environmentally hazardous --  
14.6 Special precautions for user no

**Sea transport (IMDG)**

14.1 UN number UN 3316  
14.2 Proper shipping name CHEMICAL KIT  
14.3 Class 9  
14.4 Packing group III  
14.5 Environmentally hazardous --  
14.6 Special precautions for user yes

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EmS F-A S-P

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

Not relevant

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

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**SECTION 15. Regulatory information**

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

*EU regulations*

Major Accident Hazard 96/82/EC  
Legislation Directive 96/82/EC does not apply

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Regulation (EC) No 689/2008 concerning the export and import of dangerous chemicals not regulated

Substances of very high concern (SVHC) This product does not contain substances of very high concern above the respective regulatory limit (> 0.1 % (w/w) Regulation (EC) No 1907/2006 (REACH), Article 57).

*National legislation*

Storage class 3

The data applies to the entire pack.

**15.2 Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out.

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**SECTION 16. Other information**

**Full text of H-Statements referred to under sections 2 and 3.**

H315 Causes skin irritation.  
H319 Causes serious eye irritation.

**Full text of R-phrases referred to under sections 2 and 3**

R36/38 Irritating to eyes and skin.

**Training advice**

Provide adequate information, instruction and training for operators.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

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Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

**Regional representation**

This information is given on the authorised Safety Data Sheet for your country.

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



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Revision Date 04.06.2013

Version 10.2

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

### 1.1 Product identifier

Catalogue No. 110044  
Product name Cyanide Test Method: colorimetric with test strips and reagents 1 - 3 - 10 - 30 mg/l CN<sup>-</sup> MQuant™

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REACH Registration Number This product is a mixture. REACH Registration Number see section 3.

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

Identified uses Reagent for analysis  
For additional information on uses please refer to the Merck Chemicals portal ([www.merck-chemicals.com](http://www.merck-chemicals.com)).

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

Company Merck KGaA \* 64271 Darmstadt \* Germany \* Phone:+49 6151 72-0  
Responsible Department EQ-RS \* e-mail: [prodsafe@merckgroup.com](mailto:prodsafe@merckgroup.com)

1.4 Emergency telephone number **Please contact the regional company representation in your country.**

## SECTION 2. Hazards identification

### 2.1 Classification of the substance or mixture

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

Flammable liquid, Category 3, H226

Skin corrosion, Category 1B, H314

Respiratory sensitisation, Category 1, H334

For the full text of the H-Statements mentioned in this Section, see Section 16.

**Classification (67/548/EEC or 1999/45/EC)**

	Flammable	R10
Xn	Harmful	R20/21/22
	Sensitising	R42
Xi	Irritant	R36/38

For the full text of the R-phrases mentioned in this Section, see Section 16.

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## 2.2 Label elements

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

#### Hazard pictograms



#### Signal word

Danger

#### Hazard statements

H226 Flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### Precautionary statements

##### Prevention

P210 Keep away from heat.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

##### Response

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P309 + P310 IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

#### Reduced labelling (≤125 ml)

##### Hazard pictograms



##### Signal word

Danger

##### Hazard statements

H314 Causes severe skin burns and eye damage.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

##### Precautionary statements

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.


P309 + P310 IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

Contains: Pyridine, Chloramine T

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**Labelling (67/548/EEC or 1999/45/EC)**

*Symbol(s)*  Xn Harmful

*R-phrase(s)* 10-20/21/22-36/38-42 Flammable. Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes and skin. May cause sensitisation by inhalation.

*S-phrase(s)* 23-36/37-45 Do not breathe vapour. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).


**Reduced labelling (≤125 ml)**

*Symbol(s)*  Xn Harmful

*R-phrase(s)* 10-20/21/22-42 Flammable. Harmful by inhalation, in contact with skin and if swallowed. May cause sensitisation by inhalation.

*S-phrase(s)* 23-36/37-45 Do not breathe vapour. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Reduced labelling (≤125 ml)**

 Xn Harmful

10-20/21/22-42 Flammable. Harmful by inhalation, in contact with skin and if swallowed. May cause sensitisation by inhalation.

23-36/37-45 Do not breathe vapour. 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: Pyridine, Chloramine T

**2.3 Other hazards**

None known.

**SECTION 3. Composition/information on ingredients**

Chemical nature Aqueous solution

**3.1 Substance**

not applicable

**3.2 Mixture**

**Hazardous components (REGULATION (EC) No 1272/2008)**

*Chemical Name (Concentration)*

CAS-No.	Registration number	Classification
Pyridine (>= 25 % - < 50 % )		
110-86-1	*)	Flammable liquid, Category 2, H225 Acute toxicity, Category 4, H332 Acute toxicity, Category 4, H312 Acute toxicity, Category 4, H302
Chloramine T (>= 5 % - < 10 % )		
127-65-1	*)	Acute toxicity, Category 4, H302 Skin corrosion, Category 1B, H314 Respiratory sensitisation, Category 1, H334

\*) A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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For the full text of the H-Statements mentioned in this Section, see Section 16.

**Hazardous components (1999/45/EC)**

*Chemical Name (Concentration)*

CAS-No.	Classification
Pyridine (>= 25 % - < 50 % )	
110-86-1	F, Highly flammable; R11 Xn, Harmful; R20/21/22

*Chloramine T (>= 5 % - < 10 % )*

127-65-1	R31 Xn, Harmful; R22 C, Corrosive; R34 R42
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For the full text of the R-phrases mentioned in this Section, see Section 16.

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**SECTION 4. First aid measures**

**4.1 Description of first aid measures**

After inhalation: fresh air. Call in physician.

After skin contact: wash off with plenty of water. Immediately remove contaminated clothing. If available swab with polyethylene glycol 400. Call a physician immediately.

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

After swallowing: immediately make victim drink water (two glasses at most). Call a physician immediately. Do not attempt to neutralise.

**4.2 Most important symptoms and effects, both acute and delayed**

irritant effects, narcosis, agitation, Nausea, Circulatory collapse, Headache, insomnia, Allergic reactions, Asthma

**4.3 Indication of any immediate medical attention and special treatment needed**

No information available.

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**SECTION 5. Firefighting measures**

**5.1 Extinguishing media**

*Suitable extinguishing media*

Water, Carbon dioxide (CO<sub>2</sub>), Foam, Dry powder

*Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

**5.2 Special hazards arising from the substance or mixture**

Mixture with combustible ingredients.

Forms explosive mixtures with air at elevated temperatures.

Development of hazardous combustion gases or vapours possible in the event of fire.

Fire may cause evolution of:

Hydrogen chloride gas, nitrogen oxides

**5.3 Advice for firefighters**

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*Special protective equipment for firefighters*

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

*Further information*

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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**SECTION 6. Accidental release measures**

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

Advice for non-emergency personnel: Avoid substance contact. Do not breathe vapours, aerosols. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

**6.2 Environmental precautions**

Do not empty into drains. Risk of explosion.

**6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

**6.4 Reference to other sections**

Indications about waste treatment see section 13.

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**SECTION 7. Handling and storage**

**7.1 Precautions for safe handling**

*Advice on safe handling*

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols. Observe label precautions.

*Advice on protection against fire and explosion*

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

*Hygiene measures*

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

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

*Storage conditions*

Tightly closed. Keep in a well-ventilated place. Keep away from heat and sources of ignition.

Store at +15°C to +25°C.

The data applies to the entire pack.

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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**SECTION 8. Exposure controls/personal protection**

**8.1 Control parameters**

**8.2 Exposure controls**

**Engineering measures**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

**Individual protection measures**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

*Eye/face protection*

Safety glasses

*Hand protection*

full contact:

Glove material:	butyl-rubber
Glove thickness:	0,7 mm
Break through time:	> 240 min

splash contact:

Glove material:	butyl-rubber
Glove thickness:	0,7 mm
Break through time:	> 240 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 898 Butoject® (full contact), KCL 898 Butoject® (splash contact).

This recommendation applies only to the product stated in the safety data sheet (>,<) supplied by us and for the designated use. 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)).

*Other protective equipment*

Flame retardant antistatic protective clothing

*Respiratory protection*

required when vapours/aerosols are generated.

**Environmental exposure controls**

Do not empty into drains.

Risk of explosion.

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**SECTION 9. Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

Form liquid

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SAFETY DATA SHEET  
according to Regulation (EC) No. 1907/2006

Catalogue No. 110044  
Product name Cyanide Test Method: colorimetric with test strips and reagents 1 - 3 - 10 - 30  
mg/l CN<sup>-</sup> MQuant™  
CN-2

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Colour	colourless
Odour	characteristic
Odour Threshold	No information available.
pH	No information available.
Melting point	No information available.
Boiling point	No information available.
Flash point	42 °C
Evaporation rate	No information available.
Flammability (solid, gas)	not applicable
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.
Relative vapour density	No information available.
Relative density	1,04 g/cm <sup>3</sup> at 20 °C
Water solubility	at 20 °C soluble
Partition coefficient: n- octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none

## 9.2 Other data

none

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## SECTION 10. Stability and reactivity

### 10.1 Reactivity

Explosible with air in a vaporous/gaseous state when heated.

### 10.2 Chemical stability

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CN-2

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The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

Oxidizing agents, Acid anhydrides, acid halides

Exothermic reaction with:

Risk of ignition or formation of inflammable gases or vapours with:

Fluorine, halogen-halogen compounds, chlorosulfonic acid, chromium(VI) oxide, fuming sulfuric acid, perchromates, Nitric acid, sulphuric acid, silver salt, perchlorates, nitrogen dioxide

Risk of explosion with:

perchloric acid, nitrogen oxides

### 10.4 Conditions to avoid

Heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

### 10.5 Incompatible materials

no information available

### 10.6 Hazardous decomposition products

in the event of fire: See section 5.

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## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

#### Mixture

#### *Acute oral toxicity*

Acute toxicity estimate: 2.302 mg/kg

Calculation method

Symptoms: Nausea, Headache, Circulatory collapse

#### *Acute inhalation toxicity*

Acute toxicity estimate: 42,97 mg/l; vapour

Calculation method

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:., damage of respiratory tract

#### *Acute dermal toxicity*

Acute toxicity estimate : 4.379 mg/kg

Calculation method

absorption

#### *Skin irritation*

Mixture causes burns.

#### *Eye irritation*

Mixture causes serious eye damage. Risk of blindness!

#### *Sensitisation*

Mixture may cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### *Germ cell mutagenicity*

This information is not available.

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*Carcinogenicity*

This information is not available.

*Reproductive toxicity*

This information is not available.

*Teratogenicity*

This information is not available.

*Specific target organ toxicity - single exposure*

This information is not available.

*Specific target organ toxicity - repeated exposure*

This information is not available.

*Aspiration hazard*

This information is not available.

## 11.2 Further information

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

Further toxicological data:

Systemic effects:

agitation, insomnia, narcosis

Chronic uptake results in damage of:

Liver, Kidney

Further data:

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

## Components

### *Pyridine*

*Acute oral toxicity*

LD50 rat: 891 mg/kg (RTECS)

*Acute inhalation toxicity*

LC50 rat: 17,75 mg/l; 4 h

US-EPA

*Acute dermal toxicity*

LD50 rabbit: 1.121 mg/kg (RTECS)

*Skin irritation*

rabbit

Result: slight irritation

(RTECS)

*Eye irritation*

rabbit

Result: Severe irritations

(Lit.)

*Sensitisation*

Sensitisation test: guinea pig

Result: negative

(Lit.)

*Germ cell mutagenicity*

*Genotoxicity in vivo*

Mutagenicity (mammal cell test): micronucleus.

Result: negative

(National Toxicology Program)

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Mutagenicity (mammal cell test): chromosome aberration.  
Result: negative  
(National Toxicology Program)

*Genotoxicity in vitro*  
Ames test  
Result: negative  
(Lit.)

*Teratogenicity*  
Did not show teratogenic effects in animal experiments. (External MSDS)

*Chloramine T*

*Acute oral toxicity*  
Acute toxicity estimate: 500,1 mg/kg  
Expert judgement

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**SECTION 12. Ecological information**

**Mixture**

**12.1 Toxicity**

No information available.

**12.2 Persistence and degradability**

No information available.

**12.3 Bioaccumulative potential**

No information available.

**12.4 Mobility in soil**

No information available.

**12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

**12.6 Other adverse effects**

*Additional ecological information*

Discharge into the environment must be avoided.

**Components**

*Pyridine*

*Toxicity to fish*  
LC50 Oncorhynchus mykiss (rainbow trout): 4,6 mg/l; 96 h (ECOTOX Database)

*Toxicity to daphnia and other aquatic invertebrates*  
EC5 E.sulcatum: 3,5 mg/l; 72 h (Lit.) (maximum permissible toxic concentration)

EC50 Daphnia magna (Water flea): 240 mg/l; 24 h (ECOTOX Database)

*Toxicity to algae*  
IC5 Scenedesmus quadricauda (Green algae): 120 mg/l; 7 d (Lit.) (maximum permissible toxic concentration)

*Toxicity to bacteria*  
EC5 Pseudomonas putida: 340 mg/l; 16 h (Lit.) (maximum permissible toxic concentration)

*Chloramine T*

No information available.

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**SECTION 13. Disposal considerations**

*Waste treatment methods*

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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**14. Transport information**

**Land transport (ADR/RID)**

14.1 UN number UN 3316  
14.2 Proper shipping name CHEMICAL KIT  
14.3 Class 9  
14.4 Packing group III  
14.5 Environmentally hazardous --  
14.6 Special precautions for user yes  
Tunnel restriction code E

**Inland waterway transport (ADN)**

Not relevant

**Air transport (IATA)**

14.1 UN number UN 3316  
14.2 Proper shipping name CHEMICAL KIT  
14.3 Class 9  
14.4 Packing group III  
14.5 Environmentally hazardous --  
14.6 Special precautions for user no

**Sea transport (IMDG)**

14.1 UN number UN 3316  
14.2 Proper shipping name CHEMICAL KIT  
14.3 Class 9  
14.4 Packing group III  
14.5 Environmentally hazardous --  
14.6 Special precautions for user yes  
EmS F-A S-P

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

Not relevant

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

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**SECTION 15. Regulatory information**

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

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*EU regulations*

Major Accident Hazard 96/82/EC  
Legislation Flammable.  
6  
Quantity 1: 5.000 t  
Quantity 2: 50.000 t

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work. Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Regulation (EC) No 689/2008 concerning the export and import of dangerous chemicals not regulated

Substances of very high concern (SVHC) This product does not contain substances of very high concern above the respective regulatory limit (> 0.1 % (w/w) Regulation (EC) No 1907/2006 (REACH), Article 57).

*National legislation*

Storage class 3  
The data applies to the entire pack.

## 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

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## SECTION 16. Other information

### Full text of H-Statements referred to under sections 2 and 3.

H225 Highly flammable liquid and vapour.  
H226 Flammable liquid and vapour.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H332 Harmful if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

### Full text of R-phrases referred to under sections 2 and 3

R10 Flammable.  
R11 Highly flammable.  
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.  
R22 Harmful if swallowed.  
R31 Contact with acids liberates toxic gas.  
R34 Causes burns.

**SAFETY DATA SHEET**  
according to Regulation (EC) No. 1907/2006

Catalogue No.	110044
Product name	Cyanide Test Method: colorimetric with test strips and reagents 1 - 3 - 10 - 30 mg/l CN <sup>-</sup> MQuant™ CN-2

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R36/38	Irritating to eyes and skin.
R42	May cause sensitisation by inhalation.

**Training advice**

Provide adequate information, instruction and training for operators.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

**Regional representation**

This information is given on the authorised Safety Data Sheet for your country.

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