

## Safety Data Sheet

according to 2001/58/EC

### LCK 313 Chrom/Chromium/Chrome, Sample cuvette; 1/3

Print date : 22.02.2006

Product code : LCK313-1

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

##### 1.1 Identification of the substance or preparation

LCK 313 Chrom/Chromium/Chrome, Sample cuvette; 1/3

##### Use of the substance/preparation

Water analysis

##### 1.2 Company/undertaking identification

Company name HACH LANGE GmbH  
Street Willstätterstr. 11  
Place D-40549 Düsseldorf

e-mail info@hach-lange.de  
Inquiry office

Telephone +49(0)2115288 0  
Telefax +49(0)2115288143

HACH LANGE Ltd.  
Pacific Way  
Salford Manchester M50 1DL - England  
Tel. +44 (0) 161 872 1487  
e-Mail: info@hach-lange.co.uk

#### 2. Composition/information on ingredients

Chemical characterization ( preparation )

##### Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
213-791-2	7732-18-5	Water	>75 %	C R34
231-633-2	7664-38-2	phosphoric acid ... %, orthophosphoric acid ... %	23 %	
234-722-4	12054-85-2	Ammonium heptamolydate tetrahydrate	<1 %	

Full text of each relevant R phrase can be found in heading 16.

#### 3. Hazards identification

##### Classification

Symbols : Irritant  
R-phrases :  
Irritating to eyes and skin.

#### 4. First aid measures

##### General information

Take off all contaminated clothing immediately.

##### After inhalation

Move to fresh air.

##### After contact with skin

Wash off immediately with plenty of water for at least 15 minutes. Consult a physician.

##### After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

##### After ingestion

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Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting.  
Consult a physician.

#### Advice to doctor

Treat symptomatically.

### 5. Fire-fighting measures

#### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

#### Special exposure hazards arising from substance or preparation itself, combustion products, resulting gases

Fire may liberate hazardous vapours.

#### Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

#### Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### 6. Accidental release measures

#### Personal precautions

Use personal protective equipment.

#### Environmental precautions

Do not flush into surface water or sanitary sewer system.

#### Methods for cleaning up/taking up

Soak up with inert absorbent material and dispose of as hazardous waste.

### 7. Handling and storage

#### 7.1 Handling

##### Advice on safe handling

Use only in well-ventilated areas. Do not breathe vapours/dust.

#### 7.2 Storage

##### Requirements for storage rooms and vessels

Keep tightly closed in a dry, cool and well-ventilated place.

### 8. Exposure controls/personal protection

#### 8.1 Exposure limit values

##### Exposure limits (EH40)

CAS No.	Substance	ml/m <sup>3</sup>	mg/m <sup>3</sup>	F/ml	Category	Origin
7664-38-2	Orthophosphoric acid	-	1		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL

#### 8.2 Exposure controls

##### Protective and hygiene measures

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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#### Respiratory protection

Breathing apparatus only if aerosol or dust is formed.

#### Hand protection

Use barrier skin cream.

Wash hands before breaks and after work.

Chemical resistant protective gloves

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374.

#### Eye protection

safety glasses with side-shields

#### Skin protection

Remove and wash contaminated clothing before re-use.

## 9. Physical and chemical properties

### 9.1 General information

Physical state	liquid
Colour	colourless
Odour	odourless

### 9.2 Important health, safety and environmental information

pH-Value (at 20 °C) :

1

Test method

#### Changes in the physical state

Flash point	not applicable
Lower explosion limits	not applicable
Upper explosion limits	not applicable
Density (at 20 °C) :	1,3 g/cm <sup>3</sup>
Water solubility : at (20 °C)	completely soluble

## 10. Stability and reactivity

#### Conditions to avoid

No dangerous reaction known under conditions of normal use.

#### Materials to avoid

Gives off hydrogen by reaction with metals.

#### Hazardous decomposition products

No decomposition if used as directed.

## 11. Toxicological information

#### Acute toxicity

No data is available on the product itself.

#### Corrosive and irritant effects

Irritating to eyes, respiratory system and skin.

## 12. Ecological information

#### Ecotoxicity

Do not flush into surface water or sanitary sewer system.

## 13. Disposal considerations

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#### Advice on disposal

Our local agencies will accept used cuvettes to ensure their proper disposal.  
In accordance with local and national regulations.

#### Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

#### Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

## 14. Transport information

### Land transport (ADR/RID)

ADR/RID class	9
Warning plate	
UN number	3316
ADR/RID packing group	II

#### Description of the goods

Chemical kit

### Inland waterways transport

#### Description of the goods

not tested

### Marine transport

IMDG code	9
UN number	3316
Marine pollutant	--
EmS	F-A,S-B
IMDG packing group	II

#### Description of the goods

Chemical kit

### Air transport

ICAO/IATA-DGR	9
UN/ID number	3316
ICAO packing group	II

#### Description of the goods

Chemical kit

### Further information

These transport data apply to the entire pack

## 15. Regulatory information

### 15.1 Labelling

Indication of danger	Xi - Irritant
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Xi - Irritant

Labelling according to EC-guidelines

Classification according to European directive on classification of hazardous preparations 1999/45/EC.

#### Hazardous component(s) to be indicated on label

phosphoric acid ... %, orthophosphoric acid ... %

#### R phrases

36/38 Irritating to eyes and skin.

#### S phrases

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

37/39 Wear suitable gloves and eye/face protection.

#### 15.2 National regulations

Water contaminating class

1 - slightly water contaminating

#### 16. Other information

##### List of relevant R phrases

34 Causes burns.

36/38 Irritating to eyes and skin.

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### LCK 313 Chrom/Chromium/Chrome, DosiCap Zip; 2/3

Print date : 22.02.2006

Product code : LCK313-2

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

##### 1.1 Identification of the substance or preparation

LCK 313 Chrom/Chromium/Chrome, DosiCap Zip; 2/3

##### Use of the substance/preparation

Water analysis

##### 1.2 Company/undertaking identification

Company name HACH LANGE GmbH  
Street Willstätterstr. 11  
Place D-40549 Düsseldorf

e-mail info@hach-lange.de  
Inquiry office

Telephone +49(0)2115288 0  
Telefax +49(0)2115288143

HACH LANGE Ltd.  
Pacific Way  
Salford Manchester M50 1DL - England  
Tel. +44 (0) 161 872 1487  
e-Mail: info@hach-lange.co.uk

#### 2. Composition/information on ingredients

Chemical characterization ( preparation )

##### Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
231-892-1	7775-27-1	Sodium peroxodisulfate	71 %	O, Xn R08-22-36/37/38-42/43
231-891-6	10555-76-7	Sodium metatobate	21 %	Xi R36/37/38
233-820-4	10102-25-7	Lithium sulfate monohydrate	<8 %	Xn R22

Full text of each relevant R phrase can be found in heading 16.

#### 3. Hazards identification

##### Classification

Symbols : Harmful, Irritant  
R-phrases :  
Harmful if swallowed.  
Irritating to eyes, respiratory system and skin.  
May cause sensitization by inhalation and skin contact.

#### 4. First aid measures

##### General information

Take off all contaminated clothing immediately.

##### After inhalation

Move to fresh air.

##### After contact with skin

Wash off immediately with plenty of water.

##### After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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#### After ingestion

Clean mouth with water and drink afterwards plenty of water. Consult a physician.

#### Advice to doctor

Treat symptomatically.

### 5. Fire-fighting measures

#### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

#### Special exposure hazards arriving from substance or preparation itself, combustion products, resulting gases

Fire may liberate hazardous vapours.

#### Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

#### Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### 6. Accidental release measures

#### Personal precautions

Use personal protective equipment.

#### Environmental precautions

Do not flush into surface water or sanitary sewer system.

#### Methods for cleaning up/taking up

Use mechanical handling equipment.

### 7. Handling and storage

#### 7.1 Handling

##### Advice on safe handling

Use only in well-ventilated areas.

#### 7.2 Storage

##### Requirements for storage rooms and vessels

Keep in a dry, cool place.

### 8. Exposure controls/personal protection

#### 8.1 Exposure limit values

##### Exposure limits (EH40)

CAS No.	Substance	ml/m <sup>3</sup>	mg/m <sup>3</sup>	F/ml	Category	Origin
7775-27-1	Disodium peroxodisulphate (measured as [S2O8]) (OLD)	-	1		TWA (8 h)	OES
		-	-		STEL (15 min)	OES

#### 8.2 Exposure controls

##### Protective and hygiene measures

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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#### Hand protection

Use barrier skin cream.  
Wash hands before breaks and after work.  
Chemical resistant protective gloves  
The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374.

#### Eye protection

safety glasses with side-shields

### 9. Physical and chemical properties

#### 9.1 General information

Physical state	solid
Colour	white
Odour	odourless

#### 9.2 Important health, safety and environmental information

pH-Value (at 20 °C) :	1,5 ( 5 % solution)	Test method
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#### Changes in the physical state

Flash point	not applicable
Lower explosion limits	not applicable
Upper explosion limits	not applicable
Water solubility : at (20 °C)	completely soluble

### 10. Stability and reactivity

#### Conditions to avoid

No dangerous reaction known under conditions of normal use.

#### Hazardous decomposition products

No decomposition if used as directed.

### 11. Toxicological information

#### Acute toxicity

No data is available on the product itself.

#### Corrosive and irritant effects

Irritating to eyes, respiratory system and skin.

#### Sensitising effects

May cause sensitization by inhalation and skin contact.

### 12. Ecological information

#### Ecotoxicity

No data is available on the product itself.  
Do not flush into surface water or sanitary sewer system.

### 13. Disposal considerations

#### Advice on disposal

Our local agencies will accept used cuvettes to ensure their proper disposal.  
In accordance with local and national regulations.



## Safety Data Sheet

according to 2001/58/EC

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#### Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

#### Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

## 14. Transport information

### Land transport (ADR/RID)

ADR/RID class	9
Warning plate	
UN number	3316
ADR/RID packing group	II

#### Description of the goods

Chemical kit

### Inland waterways transport

#### Description of the goods

not tested

### Marine transport

IMDG code	9
UN number	3316
Marine pollutant	--
EmS	F-A,S-B
IMDG packing group	II

#### Description of the goods

Chemical kit

### Air transport

ICAO/IATA-DGR	9
UN/ID number	3316
ICAO packing group	II

#### Description of the goods

Chemical kit

### Futher Information

These transport data apply to the entire pack

## 15. Regulatory information

### 15.1 Labelling

Indication of danger Xn - Harmful



Xn - Harmful

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Labelling according to EC-guidelines

Classification according to European directive on classification of hazardous preparations 1999/45/EC.

#### Hazardous component(s) to be indicated on label

Sodium peroxodisulfate

Sodium metatotate

#### R phrases

- 22 Harmful if swallowed.  
36/37/38 Irritating to eyes, respiratory system and skin.  
42/43 May cause sensitization by inhalation and skin contact.

#### S phrases

- 24 Avoid contact with skin.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
37/39 Wear suitable gloves and eye/face protection.

#### 15.2 National regulations

Water contaminating class

1 - slightly water contaminating

### 16. Other information

#### List of relevant R phrases

- 08 Contact with combustible material may cause fire.  
22 Harmful if swallowed.  
36/37/38 Irritating to eyes, respiratory system and skin.  
42/43 May cause sensitization by inhalation and skin contact.

## Safety Data Sheet

according to 2001/58/EC

### LCK 313 Chrom/Chromium/Chrome, DosiCap B; 3/3

Print date : 22.02.2006

Product code : LCK313-3

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

##### 1.1 Identification of the substance or preparation

LCK 313 Chrom/Chromium/Chrome, DosiCap B; 3/3

##### Use of the substance/preparation

Water analysis

##### 1.2 Company/undertaking identification

Company name HACH LANGE GmbH  
Street Willstätterstr. 11  
Place D-40549 Düsseldorf

e-mail info@hach-lange.de  
Inquiry office

Telephone +49(0)2115288 0  
Telefax +49(0)2115288143

HACH LANGE Ltd.  
Pacific Way  
Salford Manchester M50 1DL - England  
Tel. +44 (0) 161 872 1487  
e-Mail: info@hach-lange.co.uk

#### 2. Composition/information on ingredients

Chemical characterization ( preparation )

##### Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
200-711-8	69-65-8	D(-)-Mannitol	>60 %	
232-677-5	9004-54-0	Dextran	>10 %	
201-800-4	9003-39-8	Polyvidon 25	>10 %	
203-232-2	104-74-5	N-Dodecylpyridinium chloride	<5 %	Xn R21/22-36/38
205-403-7	140-22-7	1,5 Diphenylcarbazide	<5 %	

Full text of each relevant R phrase can be found in heading 16.

#### 3. Hazards identification

##### Classification

The product does not need to be labelled in accordance with EC directives or respective national laws.

#### 4. First aid measures

##### General information

Take off all contaminated clothing immediately.

##### After inhalation

Move to fresh air.

##### After contact with skin

Wash off immediately with plenty of water.

##### After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

##### After ingestion

Clean mouth with water and drink afterwards plenty of water. Consult a physician.

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#### Advice to doctor

Treat symptomatically.

### 5. Fire-fighting measures

#### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

#### Special exposure hazards arriving from substance or preparation itself, combustion products, resulting gases

Fire may liberate hazardous vapours.

#### Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

#### Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### 6. Accidental release measures

#### Personal precautions

Use personal protective equipment.

#### Environmental precautions

Do not flush into surface water or sanitary sewer system.

#### Methods for cleaning up/taking up

Use mechanical handling equipment.

### 7. Handling and storage

#### 7.1 Handling

##### Advice on safe handling

No special precautions required.

#### 7.2 Storage

##### Requirements for storage rooms and vessels

Keep in a dry, cool place.

### 8. Exposure controls/personal protection

#### 8.1 Exposure limit values

#### 8.2 Exposure controls

##### Protective and hygiene measures

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Hand protection

Use barrier skin cream.

Wash hands before breaks and after work.

Chemical resistant protective gloves

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374.

##### Eye protection

safety glasses with side-shields

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#### Skin protection

Remove and wash contaminated clothing before re-use.

## 9. Physical and chemical properties

### 9.1 General information

Physical state	solid
Colour	white
Odour	odourless

### 9.2 Important health, safety and environmental information

Test method

#### Changes in the physical state

Flash point	not applicable
Lower explosion limits	not applicable
Upper explosion limits	not applicable
Water solubility : at (20 °C)	completely soluble

## 10. Stability and reactivity

#### Conditions to avoid

No dangerous reaction known under conditions of normal use.

#### Materials to avoid

No dangerous reaction known under conditions of normal use.

#### Hazardous decomposition products

No decomposition if stored and applied as directed.

## 11. Toxicological information

#### Acute toxicity

No data is available on the product itself.

#### Specific effects in experiment on an animal

No data is available on the product itself.

## 12. Ecological information

#### Ecotoxicity

No data is available on the product itself.  
Do not flush into surface water or sanitary sewer system.

## 13. Disposal considerations

#### Advice on disposal

Our local agencies will accept used cuvettes to ensure their proper disposal.  
In accordance with local and national regulations.

#### Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

## Safety Data Sheet

according to 2001/58/EC

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#### Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

## 14. Transport information

### Land transport (ADR/RID)

ADR/RID class	9
Warning plate	
UN number	3316
ADR/RID packing group	II

#### Description of the goods

Chemical kit

### Inland waterways transport

#### Remarks (inland waterways transport)

not tested

### Marine transport

IMDG code	9
UN number	3316
Marine pollutant	--
EmS	F-A,S-B
IMDG packing group	II

#### Description of the goods

Chemical kit

### Air transport

ICAO/IATA-DGR	9
UN/ID number	3316
ICAO packing group	II

#### Description of the goods

Chemical kit

### Futher Information

These transport data apply to the entire pack

## 15. Regulatory information

### 15.1 Labelling

Labelling according to EC-guidelines	Classification according to European directive on classification of hazardous preparations 1999/45/EC.
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#### Additional information on EC regulations

The product does not need to be labelled in accordance with EC directives or respective national laws.

### 15.2 National regulations

Water contaminating class	3 - highly water contaminating
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## 16. Other information

### List of relevant R phrases

21/22	Harmful in contact with skin and if swallowed.
36/38	Irritating to eyes and skin.