

Safety Data Sheet

according to 2001/58/EC

LCK 307 Bor/Boron/Bore, Sample cuvette; 1/3

Print date : 22.02.2006

Product code : LCK307-1

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

1.1 Identification of the substance or preparation

LCK 307 Bor/Boron/Bore, 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
200-066-2	50-81-7	Ascorbic acid	< 60 %	
232-677-5	9004-54-0	Dextran	> 30 %	

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 contaminated clothing and shoes immediately.

After inhalation

Move to fresh air.

After contact with skin

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

After contact with eyes

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

After ingestion

Clean mouth with water and drink afterwards plenty of water.

Advice to doctor

Treat symptomatically.

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5. Fire-fighting measures

Suitable extinguishing media

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

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

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.
Keep in suitable, closed containers for disposal.

7. Handling and storage

7.1 Handling

Advice on safe handling

Use only in well-ventilated areas. Avoid contact with skin and eyes.

7.2 Storage

Requirements for storage rooms and vessels

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

Further information on storage conditions

Keep locked up or in an area accessible only to qualified or authorised persons.

8. Exposure controls/personal protection

8.1 Exposure limit values

8.2 Exposure controls

Occupational exposure controls

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

Protective and hygiene measures

Wash hands before breaks and at the end of workday.

Respiratory protection

Provide adequate ventilation.

Hand protection

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Use barrier skin cream.

The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.

Eye protection

safety glasses with side-shields

Skin protection

Avoid contact with skin, eyes and clothing.

9. Physical and chemical properties

9.1 General information

Physical state	solid
Colour	orange
Odour	odourless

9.2 Important health, safety and environmental information

	Test method
pH-Value (at 20 °C) :	3
Changes in the physical state	
Flash point	-
Flammability	
Solid	not applicable
Gas	not applicable
Lower explosion limits	not applicable
Upper explosion limits	not applicable
Water solubility : at (20 °C)	soluble

10. Stability and reactivity

Conditions to avoid

No decomposition if used as directed.

Additional information

Stable under recommended storage conditions.

11. Toxicological information

Acute toxicity

No data is available on the product itself.

Specific effects in experiment on an animal

Ascorbic acid: LD50/oral/rat = 11900 mg/kg

12. Ecological information

Ecotoxicity

No information on ecology is available.

13. Disposal considerations

Advice on disposal

In accordance with local and national regulations.

Our local agencies will accept used cuvettes to ensure their proper disposal.

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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.

Waste disposal number of contaminated packaging

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)

Remarks (land transport)

Not subject to transport regulations.

Inland waterways transport

Remarks (inland waterways transport)

not tested

Marine transport

Remarks (marine transport)

Not subject to transport regulations.

Air transport

Remarks (air transport)

Not subject to transport regulations.

15. Regulatory information

15.1 Labelling

Labelling according to EC-guidelines

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

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

2 - water contaminating

16. Other information

Other data

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

Safety Data Sheet

according to 2001/58/EC

LCK 307 Bor/Boron/Bore, LCK 307 A; 2/3

Print date : 22.02.2006

Product code : LCK307-2

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

1.1 Identification of the substance or preparation

LCK 307 Bor/Boron/Bore, LCK 307 A; 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

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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 %	
211-162-9	631-61-8	Ammonium acetate	< 20 %	
231-639-5	7664-93-9	sulphuric acid ... %	2 %	C R35
231-633-2	7664-38-2	phosphoric acid ... %, orthophosphoric acid ... %	< 1 %	C R34

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 contaminated clothing and shoes immediately.

After inhalation

Move to fresh air.

After contact with skin

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

After contact with eyes

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

After ingestion

Clean mouth with water and drink afterwards plenty of water.

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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.

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

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 (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. Handling and storage

7.1 Handling

Advice on safe handling

Use only in well-ventilated areas.
Avoid contact with skin and eyes.

7.2 Storage

Requirements for storage rooms and vessels

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

Further information on storage conditions

Keep locked up or in an area accessible only to qualified or authorised persons.

8. Exposure controls/personal protection

8.1 Exposure limit values

Exposure limits (EH40)

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

8.2 Exposure controls

Occupational exposure controls

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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Protective and hygiene measures

Wash hands before breaks and at the end of workday.

Respiratory protection

Provide adequate ventilation.

Hand protection

Use barrier skin cream.

The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.

Eye protection

safety glasses with side-shields

Skin protection

Avoid contact with skin, eyes and clothing.

9. Physical and chemical properties

9.1 General information

Physical state	liquid
Colour	colourless
Odour	odourless

9.2 Important health, safety and environmental information

Changes in the physical state

Flash point

Test method

-

Flammability

Solid

not applicable

Gas

not applicable

Lower explosion limits

not applicable

Upper explosion limits

not applicable

Density (at 20 °C) :

1,2 g/cm³

Water solubility :
at (20 °C)

soluble

10. Stability and reactivity

Conditions to avoid

No decomposition if used as directed.

Additional information

Stable under recommended storage conditions.

11. Toxicological information

Acute toxicity

No data is available on the product itself.

12. Ecological information

Ecotoxicity

No information on ecology is available.

13. Disposal considerations

Safety Data Sheet

according to 2001/58/EC

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Advice on disposal

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

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.

Waste disposal number of contaminated packaging

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)

Remarks (land transport)

Not subject to transport regulations.

Inland waterways transport

Remarks (inland waterways transport)

not tested

Marine transport

Remarks (marine transport)

Not subject to transport regulations.

Air transport

Remarks (air transport)

Not subject to transport regulations.

15. Regulatory information

15.1 Labelling

Labelling according to EC-guidelines

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

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

1 - slightly water contaminating

16. Other information

List of relevant R phrases

- 34 Causes burns.
- 35 Causes severe burns.

Safety Data Sheet

according to 2001/58/EC

LCK 307 Bor/Boron/Bore, LCK 307 A; 2/3

Print date : 22.02.2006

Product code : LCK307-2

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Other data

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

Safety Data Sheet

according to 2001/58/EC

LCK 307 Bor/Boron/Bore, Zero solution; 3/3

Print date : 22.02.2006

Product code : LCK307-3

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

1.1 Identification of the substance or preparation

LCK 307 Bor/Boron/Bore, Zero solution; 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
213-791-2	7732-18-5	Water	> 95 %	
231-639-5	7664-93-9	sulphuric acid ... %	< 5 %	C R35

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 contaminated clothing and shoes immediately.
Show this safety data sheet to the doctor in attendance.

After inhalation

Move to fresh air.
If symptoms persist, call a physician.

After contact with skin

Wash off immediately with plenty of water for at least 15 minutes.
If skin irritation persists, call a physician.

After contact with eyes

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

After ingestion

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Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Obtain medical attention.

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.

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

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 (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

7. Handling and storage

7.1 Handling

Advice on safe handling

Use only in well-ventilated areas. Avoid contact with skin and eyes.

7.2 Storage

Requirements for storage rooms and vessels

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

Advice on storage compatibility

Do not store near combustible materials.

Further information on storage conditions

Keep locked up or in an area accessible only to qualified or authorised persons.

8. Exposure controls/personal protection

8.1 Exposure limit values

8.2 Exposure controls

Occupational exposure controls

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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according to 2001/58/EC

LCK 307 Bor/Boron/Bore, Zero solution; 3/3

Print date : 22.02.2006

Product code : LCK307-3

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Protective and hygiene measures

Wash hands before breaks and at the end of workday.

Respiratory protection

Provide adequate ventilation.

Hand protection

Use barrier skin cream.

The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.

Eye protection

safety glasses with side-shields

Skin protection

Avoid contact with skin, eyes and clothing.

9. Physical and chemical properties

9.1 General information

Physical state	liquid
Colour	colourless
Odour	characteristic

9.2 Important health, safety and environmental information

	Test method
pH-Value (at 20 °C) :	3
Changes in the physical state	
Boiling point	100 °C
Flash point	not applicable
Lower explosion limits	not applicable
Upper explosion limits	not applicable
Density (at 20 °C) :	1,2 g/cm ³
Water solubility : at (20 °C)	soluble

10. Stability and reactivity

Additional information

Stable under recommended storage conditions.

11. Toxicological information

Acute toxicity

No toxicology information is available.

12. Ecological information

Ecotoxicity

No information on ecology is available.

13. Disposal considerations

Advice on disposal

Our local agencies will accept used cuvettes to ensure their proper disposal.

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according to 2001/58/EC

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Waste disposal number of waste from residues/unused products

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Classified as hazardous waste.

Waste disposal number of used product

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Waste disposal number of contaminated packaging

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.

Contaminated packaging

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

14. Transport information

Land transport (ADR/RID)

Remarks (land transport)

Not subject to transport regulations.

Inland waterways transport

Remarks (inland waterways transport)

not tested

Marine transport

Remarks (marine transport)

Not subject to transport regulations.

Air transport

Remarks (air transport)

Not subject to transport regulations.

15. Regulatory information

15.1 Labelling

Labelling according to EC-guidelines

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

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

1 - slightly water contaminating

16. Other information

List of relevant R phrases

35 Causes severe burns.

Other data

Safety Data Sheet

according to 2001/58/EC

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Print date : 22.02.2006

Product code : LCK307-3

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The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)