

Safety Data Sheet

according to 2001/58/EC

LCK 319 Cyanid/Cyanide/Cyanure, Aufschlussküvette/Digestion Cuvette; 1/4

Print date : 19.04.2007

Product code : LCK319-1

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

Identification of the substance or preparation

LCK 319 Cyanid/Cyanide/Cyanure, Aufschlussküvette/Digestion Cuvette; 1/4

Use of the substance/preparation

Water analysis

Company/undertaking identification

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

e-mail : info@hach-lange.de
Internet : www.hach-lange.com

Inquiry office : HACH LANGE Ltd.
Pacific Way
Salford Manchester M50 1DL - United Kingdom
Tel. +44 (0) 161 872 1487
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Telephone : +49(0)2115288-0
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HACH LANGE Ltd.
Unit 1, Chestnut Road Western Industrial Estate
Dublin 12 - Ireland
Tel. +353 (0)1 4602522
e-Mail: info@hach-lange.ie

2. Composition/information on ingredients

Chemical characterization (preparation)

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
212-889-4	877-24-7	Potassium hydrogen phthalate	45-50 %	Xn, Xi, N R22-41-50-53
231-793-3	7446-20-0	Zinc sulfate heptahydrate	< 25 %	
231-679-3	7681-82-5	Sodium iodide	< 5 %	

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

3. Hazards identification

Classification

Indications of danger : Irritant, Dangerous for the environment

R-phrases :

Irritating to eyes and skin.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.

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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

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 arriving from substance or preparation itself, combustion products, resulting gases

Fire may liberate hazardous vapours.
The following may develop in event of fire: sulfur oxides.

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

Sweep up or vacuum up spillage and collect in suitable container for disposal.

7. Handling and storage

Handling

Advice on safe handling

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

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

Exposure limit values

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Exposure limits (EH40)

CAS No.	Substance	ml/m ³	mg/m ³	F/ml	Category	Origin
7773-06-0	Ammonium sulphamidate	-	10		TWA (8 h)	WEL
		-	20		STEL (15 min)	WEL

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.

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

General information

Physical state : solid
 Colour : white, light yellow
 Odour : odourless

Important health, safety and environmental information

Test method

4

Changes in the physical state

Flammability

Solid : not applicable
 Gas : not applicable
 Lower explosion limits : not applicable
 Upper explosion limits : not applicable
 soluble

10. Stability and reactivity

Conditions to avoid

Heat, flames and sparks.

Additional information

Stable under recommended storage conditions.

11. Toxicological information

Acute toxicity

No data is available on the product itself.

12. Ecological information

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Ecotoxicity

No information on ecology is available.
Do not flush into surface water or sanitary sewer system.

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.

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)

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

Remarks (marine transport)

Not subject to transport regulations.

Air transport

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

Description of the goods

Chemical kit

15. Regulatory information

Labelling

Danger symbols : Xi - Irritant; N - Dangerous for the environment

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Xi - Irritant



N - Dangerous for the environment

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

Zinc sulfate heptahydrate

R phrases

- 36/38 Irritating to eyes and skin.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S phrases

- 25 Avoid contact with eyes.
35 This material and its container must be disposed of in a safe way.
37/39 Wear suitable gloves and eye/face protection.

National regulations

Water contaminating class : 2 - water contaminating

16. Other information

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

- 22 Harmful if swallowed.
41 Risk of serious damage to eyes.
50 Very toxic to aquatic organisms.
53 May cause long-term adverse effects in the aquatic environment.
36/38 Irritating to eyes and skin.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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 319 Cyanid/Cyanide/Cyanure, Indikator Küvette/Indicator Cuvette; 2/4

Print date : 19.04.2007

Product code : LCK319-2

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

Identification of the substance or preparation

LCK 319 Cyanid/Cyanide/Cyanure, Indikator Küvette/Indicator Cuvette; 2/4

Use of the substance/preparation

Water analysis

Company/undertaking identification

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

e-mail : info@hach-lange.de
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HACH LANGE Ltd.
Unit 1, Chestnut Road Western Industrial Estate
Dublin 12 - Ireland
Tel. +353 (0)1 4602522
e-Mail: info@hach-lange.ie

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	> 97 %	
203-740-4	110-15-6	Succinic acid	< 0,5 %	Xi R36
231-714-2	7697-37-2	nitric acid ... %	< 0,2 %	O, C R8-35
201-174-2	79-07-2	2-chloracetamide	< 0,2 %	Repr. Cat. 3, T R62-25-43
208-534-8	532-32-1	Sodium benzoate	< 1 %	

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

3. Hazards identification

Classification

Indications of danger : Irritant

R-phrases :

May cause sensitization by skin contact.

4. First aid measures

General information

Take off all contaminated clothing immediately.

After inhalation

Move to fresh air.

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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.

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

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. Handling and storage

Handling

Advice on safe handling

Use only in well-ventilated areas.

Storage

Requirements for storage rooms and vessels

Keep in a dry, cool place.

8. Exposure controls/personal protection

Exposure limit values

Exposure limits (EH40)

CAS No.	Substance	ml/m ³	mg/m ³	F/ml	Category	Origin
7697-37-2	Nitric acid	2	5.2		TWA (8 h)	WEL
		4	10		STEL (15 min)	WEL

Exposure controls

Safety Data Sheet

according to 2001/58/EC

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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

Skin protection

Remove and wash contaminated clothing before re-use.

9. Physical and chemical properties

General information

Physical state : liquid
Colour : colourless
Odour : odourless

Important health, safety and environmental information

	Test method
Changes in the physical state	
Melting point :	6,5
Flash point :	- 32 °C
Lower explosion limits :	not applicable
Upper explosion limits :	not applicable
	1 g/cm ³
	completely soluble

10. Stability and reactivity

Conditions to avoid

No dangerous reaction known under conditions of normal use.

Materials to avoid

oxidizing agents
alkali metals
alkaline earth metals
metals

Hazardous decomposition products

Nitrous acid and other nitrosating agents

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.

Sensitising effects

Skin sensitization

Safety Data Sheet

according to 2001/58/EC

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Product code : LCK319-2

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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

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)

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

Remarks (marine transport)

Not subject to transport regulations.

Air transport

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

Description of the goods

Chemical kit

15. Regulatory information

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LCK 319 Cyanid/Cyanide/Cyanure, Indikator Küvette/Indicator Cuvette; 2/4

Print date : 19.04.2007

Product code : LCK319-2

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Labelling

Danger symbols : Xi - Irritant



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

2-chloracetamide

R phrases

43 May cause sensitization by skin contact.

S phrases

24 Avoid contact with skin.

37 Wear suitable gloves.

National regulations

Water contaminating class : - - not water contaminating

16. Other information

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

- 08 Contact with combustible material may cause fire.
- 25 Toxic if swallowed.
- 35 Causes severe burns.
- 36 Irritating to eyes.
- 43 May cause sensitization by skin contact.

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 319 Cyanid/Cyanide/Cyanure, Nullküvette/Zero Cuvette; 3/4

Print date : 19.04.2007

Product code : LCK319-3

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

Identification of the substance or preparation

LCK 319 Cyanid/Cyanide/Cyanure, Nullküvette/Zero Cuvette; 3/4

Use of the substance/preparation

Water analysis

Company/undertaking identification

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

e-mail : info@hach-lange.de
Internet : www.hach-lange.com

Inquiry office : HACH LANGE Ltd.
Pacific Way
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Telefax : +49(0)2115288-143

HACH LANGE Ltd.
Unit 1, Chestnut Road Western Industrial Estate
Dublin 12 - Ireland
Tel. +353 (0)1 4602522
e-Mail: info@hach-lange.ie

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	> 97 %	
203-740-4	110-15-6	Succinic acid	< 0,5 %	Xi R36
231-714-2	7697-37-2	nitric acid ... %	< 0,2 %	O, C R8-35
201-174-2	79-07-2	2-chloracetamide	< 0,2 %	Repr. Cat. 3, T R62-25-43
208-534-8	532-32-1	Sodium benzoate	< 1 %	

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

3. Hazards identification

Classification

Indications of danger : Irritant

R-phrases :

May cause sensitization by skin contact.

4. First aid measures

General information

Take off all contaminated clothing immediately.

After inhalation

Move to fresh air.

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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.

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

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. Handling and storage

Handling

Advice on safe handling

Use only in well-ventilated areas.

Storage

Requirements for storage rooms and vessels

Keep in a dry, cool place.

8. Exposure controls/personal protection

Exposure limit values

Exposure limits (EH40)

CAS No.	Substance	ml/m ³	mg/m ³	F/ml	Category	Origin
7697-37-2	Nitric acid	2	5.2		TWA (8 h)	WEL
		4	10		STEL (15 min)	WEL

Exposure controls

Safety Data Sheet

according to 2001/58/EC

LCK 319 Cyanid/Cyanide/Cyanure, Nullküvette/Zero Cuvette; 3/4

Print date : 19.04.2007

Product code : LCK319-3

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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

Skin protection

Remove and wash contaminated clothing before re-use.

9. Physical and chemical properties

General information

Physical state : liquid
Colour : colourless
Odour : odourless

Important health, safety and environmental information

Test method

7

Changes in the physical state

Melting point : - 32 °C
Flash point : not applicable
Lower explosion limits : not applicable
Upper explosion limits : not applicable
1 g/cm³
completely soluble

10. Stability and reactivity

Conditions to avoid

No dangerous reaction known under conditions of normal use.

Materials to avoid

oxidizing agents
alkali metals
alkaline earth metals
metals

Hazardous decomposition products

Nitrous acid and other nitrosating agents

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.

Sensitising effects

Skin sensitization

Safety Data Sheet

according to 2001/58/EC

LCK 319 Cyanid/Cyanide/Cyanure, Nullküvette/Zero Cuvette; 3/4

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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

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)

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

Remarks (marine transport)

Not subject to transport regulations.

Air transport

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

Description of the goods

Chemical kit

15. Regulatory information

Safety Data Sheet

according to 2001/58/EC

LCK 319 Cyanid/Cyanide/Cyanure, Nullküvette/Zero Cuvette; 3/4

Print date : 19.04.2007

Product code : LCK319-3

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Labelling

Danger symbols : Xi - Irritant



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

2-chloracetamide

R phrases

43 May cause sensitization by skin contact.

S phrases

24 Avoid contact with skin.

37 Wear suitable gloves.

National regulations

Water contaminating class : - - not water contaminating

16. Other information

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

08 Contact with combustible material may cause fire.
25 Toxic if swallowed.
35 Causes severe burns.
36 Irritating to eyes.
43 May cause sensitization by skin contact.

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 319 Cyanid/Cyanide/Cyanure, Vergleichslösung/Reference Cuvette; 4/4

Print date : 19.04.2007

Product code : LCK319-4

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

Identification of the substance or preparation

LCK 319 Cyanid/Cyanide/Cyanure, Vergleichslösung/Reference Cuvette; 4/4

Use of the substance/preparation

Water analysis

Company/undertaking identification

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

e-mail : info@hach-lange.de
Internet : www.hach-lange.com

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

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HACH LANGE Ltd.
Unit 1, Chestnut Road Western Industrial Estate
Dublin 12 - Ireland
Tel. +353 (0)1 4602522
e-Mail: info@hach-lange.ie

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 %	
212-889-4	877-24-7	Potassium hydrogen phthalate	< 3 %	
231-793-3	7446-20-0	Zinc sulfate heptahydrate	< 2 %	Xn, Xi, N R22-41-50-53
231-871-7	7773-06-0	Ammonium amidosulfonate	< 1 %	
231-679-3	7681-82-5	Sodium iodide	< 0,5 %	

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

3. Hazards identification

Classification

R-phrases :
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

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according to 2001/58/EC

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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

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 arriving from substance or preparation itself, combustion products, resulting gases

Fire may liberate hazardous vapours.
The following may develop in event of fire: sulfur oxides.

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

Sweep up or vacuum up spillage and collect in suitable container for disposal.

7. Handling and storage

Handling

Advice on safe handling

Use only in well-ventilated areas.

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

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Exposure limit values

Exposure limits (EH40)

CAS No.	Substance	ml/m ³	mg/m ³	F/ml	Category	Origin
7773-06-0	Ammonium sulphamidate	-	10		TWA (8 h)	WEL
		-	20		STEL (15 min)	WEL

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.

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

General information

Physical state : solid
 Colour : white, light yellow
 Odour : odourless

Important health, safety and environmental information

Test method

4

Changes in the physical state

Flammability

Solid :

not applicable

Gas :

not applicable

Lower explosion limits :

not applicable

Upper explosion limits :

not applicable

1 g/cm³

soluble

10. Stability and reactivity

Conditions to avoid

Heat, flames and sparks.

Additional information

Stable under recommended storage conditions.

11. Toxicological information

Acute toxicity

No data is available on the product itself.

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12. Ecological information

Ecotoxicity

No information on ecology is available.
Do not flush into surface water or sanitary sewer system.

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.

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)

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

Remarks (marine transport)

Not subject to transport regulations.

Air transport

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

Description of the goods

Chemical kit

15. Regulatory information

Safety Data Sheet

according to 2001/58/EC

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Labelling

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

Zinc sulfate heptahydrate

R phrases

52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

National regulations

Water contaminating class : 1 - slightly water contaminating

16. Other information

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

- 22 Harmful if swallowed.
- 41 Risk of serious damage to eyes.
- 50 Very toxic to aquatic organisms.
- 53 May cause long-term adverse effects in the aquatic environment.
- 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.)