

Safety Data Sheet

according to 2001/58/EC

LCK 014 CSB/COD/DCO

Print date : 22.02.2006

Product code : LCK014

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

1.1 Identification of the substance or preparation

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Use of the substance/preparation

Water analysis

1.2 Company/undertaking identification

Company name HACH LANGE GmbH
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Place D-40549 Düsseldorf

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Inquiry office

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2. Composition/information on ingredients

Chemical characterization (preparation)

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
231-639-5	7664-93-9	sulphuric acid ... %	65 %	C R35
213-791-2	7732-18-5	Water	33 %	
231-906-6	7778-50-9	potassium dichromate	<1 %	O, Carc. Cat. 2, Muta. Cat. 2, Repr. Cat. 2, T+, T, Xn, C, N R8-45-46-60-61-26-25-48/23-21-34-42/43-50-53
233-653-7	7783-35-9	Mercury(II) sulfate	<1 %	T+, N R33-26/27/28-50-53
233-653-7	10294-26-5	Silver sulfate	<0,5 %	Xi R41

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

3. Hazards identification

Classification

Symbols : Toxic, Corrosive

R-phrases :

May cause cancer.

May cause heritable genetic damage.

May impair fertility.

May cause harm to the unborn child.

Danger of cumulative effects.

Causes severe burns.

Toxic by inhalation, in contact with skin and if swallowed.

May cause sensitization by inhalation and skin contact.

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

4. First aid measures

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General information

Take off all contaminated clothing immediately.
Consult a physician. Show this safety data sheet to the doctor in attendance.

After inhalation

Move to fresh air.
Consult a physician. Show this safety data sheet to the doctor in attendance.

After contact with skin

Wash off immediately with plenty of water for at least 15 minutes.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. Show this safety data sheet to the doctor in attendance.

After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Show this safety data sheet to the doctor in attendance.

After ingestion

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting.
Consult a physician. Show this safety data sheet to the doctor in attendance.

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. The following may develop in event of fire: sulfur oxides, mercury vapors.

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.

Additional information

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

7. Handling and storage

7.1 Handling

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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. Protect against light. Accessible only for authorized 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
7783-35-9	Mercury(II) sulfate		0,1		TWA (8 h) STEL (15 min)	MAK MAK

BAT values (TRGS 903)

CAS No.	Substance	Value	Parameter	Test material	Sampling time
7439-97-6	Quecksilber, met.u.anorg. Quecksilberverbind.	100 µg/l	Quecksilber	U	a

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.

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	orange
Odour	odourless

9.2 Important health, safety and environmental information

pH-Value (at 20 °C) :	< 1	Test method
Changes in the physical state		
Boiling point	300 °C	
Flash point	not applicable	
Flammability		

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Solid	not applicable
Gas	not applicable
Lower explosion limits	not applicable
Upper explosion limits	not applicable
Density (at 20 °C) :	1,55 g/cm ³
Water solubility : at (20 °C)	completely soluble

9.3 Other information

Ignition temperature	not applicable
no data available	

10. Stability and reactivity

Conditions to avoid

To avoid thermal decomposition, do not overheat. Above 300 °C, hazardous fumes may be released.

Materials to avoid

organic materials, bases, alkali metals, metals, ammonia, reducing agents, nitric acid.
Reacts violently with water.

Hazardous decomposition products

Sulphur trioxide
chromium oxides

Additional information

very reactive

11. Toxicological information

Acute toxicity

No data is available on the product itself. Information given is based on data on the components and the toxicology of similar products.

Corrosive and irritant effects

The product causes burns of eyes, skin and mucous membranes.

Sensitising effects

May cause sensitization by inhalation and skin contact.

Carcinogenic/mutagenic/toxic effects for reproduction

Carcinogen.
Mutagen.
toxic effects for reproduction

12. Ecological information

Ecotoxicity

May cause long-term adverse effects in the aquatic environment.
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.

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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	8
Warning plate	
UN number	2922
Hazard label	8+6.1
ADR/RID packing group	I

Description of the goods

Corrosive liquid, toxic, n.o.s.

Inland waterways transport

Remarks (inland waterways transport)

not tested

Marine transport

IMDG code	8+6.1
UN number	3316
Marine pollutant	--
EmS	F-A, S-P
IMDG packing group	I

Description of the goods

Corrosive liquid, toxic, n.o.s. (Chromosulphuric acid, mercury sulphate)

Air transport

ICAO/IATA-DGR	8+6.1
UN/ID number	2922
ICAO packing group	I

Description of the goods

Corrosive liquid, toxic, n.o.s. (Chromosulphuric acid, mercury sulphate)

15. Regulatory information

15.1 Labelling

Indication of danger

T - Toxic; C - Corrosive



T - Toxic

C - Corrosive

Labelling according to EC-guidelines

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

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Hazardous component(s) to be indicated on label

potassium dichromate
sulphuric acid ... %
Mercury(II) sulfate

R phrases

- 33 Danger of cumulative effects.
- 35 Causes severe burns.
- 45 May cause cancer.
- 46 May cause heritable genetic damage.
- 60 May impair fertility.
- 61 May cause harm to the unborn child.
- 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- 42/43 May cause sensitization by inhalation and skin contact.
- 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S phrases

- 53 Avoid exposure - obtain special instructions before use.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Special labelling for certain preparations

Restricted to professional users.

15.2 National regulations

- | | |
|---------------------------|---|
| Employment restrictions | Observe employment restrictions for young people.; Observe employment restrictions for child bearing mothers and nursing. |
| Water contaminating class | 3 - highly water contaminating |

16. Other information

List of relevant R phrases

- 21 Harmful in contact with skin.
- 25 Toxic if swallowed.
- 26 Very toxic by inhalation.
- 33 Danger of cumulative effects.
- 34 Causes burns.
- 35 Causes severe burns.
- 41 Risk of serious damage to eyes.
- 45 May cause cancer.
- 46 May cause heritable genetic damage.
- 50 Very toxic to aquatic organisms.
- 53 May cause long-term adverse effects in the aquatic environment.
- 60 May impair fertility.
- 61 May cause harm to the unborn child.
- 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- 26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.
- 42/43 May cause sensitization by inhalation and skin contact.
- 48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.
- 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.

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