

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**LYW 513 Chrom gesamt/Chromium total; 1/2**

Revision date: 26.04.2017

Product code: LYW513-1

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

LYW 513 Chrom gesamt/Chromium total; 1/2

CAS No: 7727-21-1  
Index No: 016-061-00-1  
EC No: 231-781-8

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Water analysis

**1.3. Details of the supplier of the safety data sheet**

Company name: HACH LANGE GmbH  
Street: Willstätterstr. 11  
Place: D-40549 Düsseldorf  
Telephone: +49 (0)211 5288-383  
e-mail: SDS@hach.com  
Internet: www.de.hach.com  
Responsible Department: HACH LANGE Ltd.  
5, Pacific Way  
Salford Manchester M50 1DL - United Kingdom  
Tel. +44 (0) 161 872 1487 \* Fax +44 (0) 161 848 7324  
e-Mail: info-uk@hach.com

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

**1.4. Emergency telephone number:**

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Oxidising solid: Ox. Sol. 3

Acute toxicity: Acute Tox. 4

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Skin corrosion/irritation: Skin Irrit. 2

Respiratory or skin sensitisation: Resp. Sens. 1

Respiratory or skin sensitisation: Skin Sens. 1

Hazard Statements:

May intensify fire; oxidiser.

Harmful if swallowed.

Causes serious eye irritation.

May cause respiratory irritation.

Causes skin irritation.

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

May cause an allergic skin reaction.

**2.2. Label elements**

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**Regulation (EC) No. 1272/2008**
**Hazard components for labelling**

dipotassium peroxodisulphate; potassium persulphate

**Signal word:** Danger

**Pictograms:**

**Hazard statements**

H272 May intensify fire; oxidiser.  
 H302 Harmful if swallowed.  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H335 May cause respiratory irritation.  
 H319 Causes serious eye irritation.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.

**Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

**Additional advice on labelling**

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

**2.3. Other hazards**

None known.

**SECTION 3: Composition/information on ingredients**
**3.1. Substances**
**Hazardous components**

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
7727-21-1	dipotassium peroxodisulphate; potassium persulphate	100 %
	231-781-8	
	016-061-00-1	
	Ox. Sol. 3, Acute Tox. 4, Eye Irrit. 2, STOT SE 3, Skin Irrit. 2, Resp. Sens. 1, Skin Sens. 1; H272 H302 H319 H335 H315 H334 H317	

Full text of H and EUH statements: see section 16.

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**
**General information**

Show this safety data sheet to the doctor in attendance.

**After inhalation**

Move to fresh air.

**After contact with skin**

Take off all contaminated clothing immediately. Wash off immediately with plenty of water.

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Consult a physician.

#### **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.

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

irritant effects, Allergic reactions, Cough, Shortness of breath

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

Treat symptomatically.

## 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**

No Limit

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

Oxidizing agents (strong) - Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.

Fire may liberate hazardous vapours.

In the event of fire the following can be released: Sulphur oxides

### **5.3. Advice for firefighters**

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.

## SECTION 6: Accidental release measures

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

Use personal protective equipment.

### **6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system.

### **6.3. Methods and material for containment and cleaning up**

Use mechanical handling equipment.

Keep in suitable, closed containers for disposal.

### **6.4. Reference to other sections**

13. Disposal considerations

## SECTION 7: Handling and storage

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

Avoid contact with skin and eyes.

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

#### **Further information on handling**

Observe label precautions.

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

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#### Requirements for storage rooms and vessels

Keep in a dry, cool place.

#### Hints on joint storage

Keep away from combustible material.

#### 7.3. Specific end use(s)

Reagent for analysis

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
7727-21-1	(OLD) Dipotassium peroxodisulphate (measured as [S208])	-	1		TWA (8 h)	OES

#### Additional advice on limit values

None known.

#### 8.2. Exposure controls

##### Appropriate engineering controls

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

##### 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.

Wash hands before breaks and after work.

##### Eye/face protection

Safety glasses with side-shields

##### Hand protection

Use barrier skin cream.

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.

In case of full contact:

Glove material : Nitrile rubber

Layer thickness: 0,11 mm

Break through time: 480 min

In case of contact through splashing:

Glove material : Nitrile rubber

Layer thickness: 0,11 mm

Break through time: 60 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves.

##### Skin protection

Avoid contact with skin, eyes and clothing.

##### Respiratory protection

Provide adequate ventilation.

Breathing apparatus only if aerosol or dust is formed.

Recommended Filter type: ABEK-filter

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#### Environmental exposure controls

Do not flush into surface water or sanitary sewer system.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state: powder  
 Colour: white  
 Odour: odourless

#### Test method

pH-Value (at 20 °C): 4

#### Changes in the physical state

Melting point: 100 °C Decomposition temperature  
 Initial boiling point and boiling range: not applicable  
 Sublimation point: no data available  
 Softening point: not applicable  
 Pour point: not applicable  
 : no data available  
 Flash point: not applicable  
 Sustaining combustion: No data available

#### Flammability

Solid: not applicable  
 Gas: not applicable

#### Explosive properties

not applicable

Lower explosion limits: not applicable  
 Upper explosion limits: not applicable  
 Ignition temperature: no data available

#### Auto-ignition temperature

Solid: no data available  
 Gas: no data available

Decomposition temperature: 100 °C

#### Oxidizing properties

no data available

Vapour pressure: no data available  
 Vapour pressure: no data available

Density (at 20 °C): 2,48 g/cm<sup>3</sup>  
 Bulk density: no data available

Water solubility: 47 g/L  
 (at 20 °C)

#### Solubility in other solvents

no data available

Partition coefficient: no data available

Viscosity / dynamic: no data available

Viscosity / kinematic: no data available

Flow time: no data available

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Vapour density: no data available  
 Evaporation rate: no data available  
 Solvent separation test: no data available  
 Solvent content: no data available

#### 9.2. Other information

Solid content: no data available  
 no data available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Reactivity Hazard: Oxidizing agents

#### 10.2. Chemical stability

Stable under recommended storage conditions.

#### 10.3. Possibility of hazardous reactions

Reacts with the following substances: Metals, Heavy metals, Reducing agents, Combustible material, Strong bases, Acids

#### 10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.  
 Exposure to moisture.

#### 10.5. Incompatible materials

Combustible material  
 Reducing agents  
 Bases

#### 10.6. Hazardous decomposition products

Sulphur oxides

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7727-21-1	dipotassium peroxodisulphate; potassium persulphate				
	oral	LD50 mg/kg	802	Rat	GESTIS

##### Irritation and corrosivity

Contact with eyes or skin causes irritation.

##### Sensitising effects

May cause sensitisation by inhalation.  
 May cause sensitisation by skin contact.

##### Carcinogenic/mutagenic/toxic effects for reproduction

Contains no ingredient listed as a carcinogen

##### STOT-single exposure

May cause irritation of respiratory tract.

##### STOT-repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

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#### Aspiration hazard

No aspiration toxicity classification

#### Specific effects in experiment on an animal

No toxicology information is available.

#### Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

## SECTION 12: Ecological information

### 12.1. Toxicity

No information on ecology is available.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7727-21-1	dipotassium peroxodisulphate; potassium persulphate					
	Acute fish toxicity	LC50	100 mg/l	96 h	Poecilia reticulata	Hommel

### 12.2. Persistence and degradability

No data is available on the product itself.

### 12.3. Bioaccumulative potential

No data is available on the product itself.

### 12.4. Mobility in soil

no data available

### 12.5. Results of PBT and vPvB assessment

no data available

### 12.6. Other adverse effects

Discharge into the environment must be avoided.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Advice on 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 hazardous substances, including mixtures of laboratory chemicals; 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 hazardous substances, including mixtures of laboratory chemicals; hazardous waste

## SECTION 14: Transport information

### Land transport (ADR/RID)

<b>14.1. UN number:</b>	UN 3316
<b>14.2. UN proper shipping name:</b>	Chemical kit
<b>14.3. Transport hazard class(es):</b>	9
<b>14.4. Packing group:</b>	II
Hazard label:	9

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Classification code: M11  
 Special Provisions: 251 340  
 Limited quantity: SP251  
 Excepted quantity: SP340  
 Transport category: 2  
 Hazard No: -  
 Tunnel restriction code: E

**Inland waterways transport (ADN)**

**Other applicable information (inland waterways transport)**

Not tested

**Marine transport (IMDG)**

**14.1. UN number:** UN 3316  
**14.2. UN proper shipping name:** CHEMICAL KIT  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** II  
 Hazard label: 9



Marine pollutant: --  
 Special Provisions: 251, 340  
 Limited quantity: See SP251  
 Excepted quantity: SP340  
 EmS: F-A, S-P

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number:** UN 3316  
**14.2. UN proper shipping name:** CHEMICAL KIT  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** II  
 Hazard label: 9



Special Provisions: A44 A163  
 Limited quantity Passenger: 1 kg  
 Passenger LQ: Y960  
 Excepted quantity: E0  
 IATA-packing instructions - Passenger: 960  
 IATA-max. quantity - Passenger: 10 kg  
 IATA-packing instructions - Cargo: 960  
 IATA-max. quantity - Cargo: 10 kg

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

no data available



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#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

#### **Other applicable information**

These transport data apply to the entire pack

### SECTION 15: Regulatory information

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

##### **National regulatory information**

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D): 1 - slightly water contaminating

#### 15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

### SECTION 16: Other information

#### **Changes**

Revision Date 26.04.2017

Safety datasheet sections which have been updated: 2, 9, 14, 15

Revision: 1.02.2017

Safety datasheet sections which have been updated: 2, 5, 8, 11, 12, 14

Revision: 15.10.2014

Safety datasheet sections which have been updated: 2

#### **Relevant H and EUH statements (number and full text)**

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

#### **Further Information**

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

### 1.1. Product identifier

LYW 513 Chrom gesamt/Chromium total A; 2/2

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

#### Use of the substance/mixture

Water analysis

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

Company name: HACH LANGE GmbH  
Street: Willstätterstr. 11  
Place: D-40549 Düsseldorf  
Telephone: +49 (0)211 5288-383  
e-mail: SDS@hach.com  
Internet: www.de.hach.com  
Responsible Department: HACH LANGE Ltd.  
5, Pacific Way  
Salford Manchester M50 1DL - United Kingdom  
Tel. +44 (0) 161 872 1487 \* Fax +44 (0) 161 848 7324  
e-Mail: info-uk@hach.com

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

### 1.4. Emergency telephone number:

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No. 1272/2008

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

### 2.2. Label elements

#### Regulation (EC) No. 1272/2008

##### Hazard components for labelling

phosphoric acid; orthophosphoric acid ... %

Signal word: Warning

Pictograms:



##### Hazard statements

H315

Causes skin irritation.

H319

Causes serious eye irritation.

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#### Precautionary statements

- P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P302+P352 IF ON SKIN: Wash with plenty of 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.  
 P313 Get medical advice/attention.

#### Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

#### 2.3. Other hazards

no data available

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
7732-18-5	Water			80-90 %
	231-791-2			
7664-38-2	phosphoric acid; orthophosphoric acid ... %			10-20 %
	231-633-2	015-011-00-6		
	Skin Corr. 1B; H314			

Full text of H and EUH statements: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### 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.

##### After contact with skin

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

##### 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.

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

Irritation and corrosion

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

Treat symptomatically.

### SECTION 5: Firefighting measures

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#### 5.1. Extinguishing media

##### Suitable extinguishing media

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

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

Fire may liberate hazardous vapours.

#### 5.3. Advice for firefighters

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.

### SECTION 6: Accidental release measures

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

Use personal protective equipment. Ensure adequate ventilation.

#### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

#### 6.3. Methods and material for containment and cleaning up

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

#### 6.4. Reference to other sections

13. Disposal considerations

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Advice on safe handling

Use only in well-ventilated areas. Do not breathe vapours/dust.  
Avoid contact with skin and eyes.

##### Advice on protection against fire and explosion

None known.  
See also section 5

##### Further information on handling

Observe label precautions.  
Avoid contact with skin, eyes and clothing.

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

##### Requirements for storage rooms and vessels

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

#### 7.3. Specific end use(s)

Reagent for analysis

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

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

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#### Additional advice on limit values

None known.

#### 8.2. Exposure controls

##### Appropriate engineering controls

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

##### Protective and hygiene measures

Wash hands before breaks and after work.

General industrial hygiene practice.

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

##### Eye/face protection

Safety glasses with side-shields

##### Hand protection

Use barrier skin cream.

Wash hands before breaks and after work.

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374. In full contact:

Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: >480 min. In splash contact: Glove

material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: > 30 min

##### Skin protection

Avoid contact with skin, eyes and clothing.

Remove and wash contaminated clothing before re-use.

##### Respiratory protection

Breathing apparatus only if aerosol or dust is formed.

Recommended Filter type: ABEK-filter

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	irritating
pH-Value (at 20 °C):	< 1

#### Changes in the physical state

Melting point:	no data available
Initial boiling point and boiling range:	no data available
Sublimation point:	not applicable
Softening point:	not applicable
Pour point:	not applicable
:	no data available
Flash point:	not applicable
Sustaining combustion:	No data available

#### Flammability

Solid:	no data available
Gas:	no data available

#### Explosive properties

not applicable

Lower explosion limits:	not applicable
Upper explosion limits:	not applicable

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Ignition temperature:	no data available
<b>Auto-ignition temperature</b>	
Solid:	no data available
Gas:	no data available
Decomposition temperature:	no data available
<b>Oxidizing properties</b>	
no data available	
Vapour pressure:	no data available
Vapour pressure:	no data available
Density (at 20 °C):	1,073 g/cm <sup>3</sup>
Bulk density:	not applicable
Water solubility:	miscible
<b>Solubility in other solvents</b>	
soluble	
Partition coefficient:	no data available
Viscosity / dynamic:	no data available
Viscosity / kinematic:	no data available
Flow time:	no data available
Vapour density:	no data available
Evaporation rate:	no data available
Solvent separation test:	no data available
Solvent content:	no data available
<b>9.2. Other information</b>	
Solid content:	not applicable
no data available	

**SECTION 10: Stability and reactivity****10.1. Reactivity**

May be corrosive to metals.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

Reacts with the following substances: Strong bases, Metals

**10.4. Conditions to avoid**

Extremes of temperature and direct sunlight.

**10.5. Incompatible materials**

Strong bases

**10.6. Hazardous decomposition products**

Oxides of phosphorus

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

No toxicology information is available.

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#### Acute toxicity

No data is available on the product itself.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7664-38-2	phosphoric acid; orthophosphoric acid ... %				
	dermal	LD50 2740 mg/kg	rabbit	IUCLID	

#### Irritation and corrosivity

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

#### Sensitising effects

No known effect.

#### Carcinogenic/mutagenic/toxic effects for reproduction

Contains no ingredient listed as a carcinogen

#### STOT-single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### STOT-repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### Aspiration hazard

No aspiration toxicity classification

#### Specific effects in experiment on an animal

phosphoric acid; orthophosphoric acid ... %:  
 rabbit eye 199 mg - Severe eye irritation  
 rabbit skin 595 mg/24H - Severe skin irritation

#### Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Do not flush into surface water or sanitary sewer system.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7664-38-2	phosphoric acid; orthophosphoric acid ... %					
	Acute fish toxicity	LC50 138 mg/l	96 h	Gambusia affinis		

#### 12.2. Persistence and degradability

No data is available on the product itself.

#### 12.3. Bioaccumulative potential

No data is available on the product itself.

#### 12.4. Mobility in soil

no data available

#### 12.5. Results of PBT and vPvB assessment

no data available

#### 12.6. Other adverse effects

Discharge into the environment must be avoided.

### SECTION 13: Disposal considerations

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**13.1. Waste treatment methods****Advice on 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 hazardous substances, including mixtures of laboratory chemicals; 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 hazardous substances, including mixtures of laboratory chemicals; 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 hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**SECTION 14: Transport information****Land transport (ADR/RID)**

<b>14.1. UN number:</b>	UN 3316
<b>14.2. UN proper shipping name:</b>	Chemical kit
<b>14.3. Transport hazard class(es):</b>	9
<b>14.4. Packing group:</b>	II
Hazard label:	9



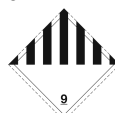
Classification code:	M11
Special Provisions:	251 340
Limited quantity:	SP251
Excepted quantity:	SP340
Transport category:	2
Hazard No:	-
Tunnel restriction code:	E

**Inland waterways transport (ADN)****Other applicable information (inland waterways transport)**

Not tested

**Marine transport (IMDG)**

<b>14.1. UN number:</b>	UN 3316
<b>14.2. UN proper shipping name:</b>	CHEMICAL KIT
<b>14.3. Transport hazard class(es):</b>	9
<b>14.4. Packing group:</b>	II
Hazard label:	9



Marine pollutant:	--
Special Provisions:	251, 340
Limited quantity:	See SP251



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Excepted quantity: SP340  
EmS: F-A, S-P

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number:** UN 3316  
**14.2. UN proper shipping name:** CHEMICAL KIT  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** II  
Hazard label: 9



Special Provisions: A44 A163  
Limited quantity Passenger: 1 kg  
Passenger LQ: Y960  
Excepted quantity: E0  
IATA-packing instructions - Passenger: 960  
IATA-max. quantity - Passenger: 10 kg  
IATA-packing instructions - Cargo: 960  
IATA-max. quantity - Cargo: 10 kg

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

no data available

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Not relevant

**Other applicable information**

These transport data apply to the entire pack

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Changes**

Revision Date 26.04.2017  
Safety datasheet sections which have been updated: 9, 14, 15

Revision: 1.02.2017  
Safety datasheet sections which have been updated: 2, 11, 14  
Revision: 15.10.2014  
Safety datasheet sections which have been updated: 2

**Relevant H and EUH statements (number and full text)**

H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.



## Safety Data Sheet

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### LYW 513 Chrom gesamt/Chromium total A; 2/2

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H319 Causes serious eye irritation.

#### Further Information

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.)*