

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### LCK 537 Nickel, LCK 537 A; 1/2

Revision date: 21.03.2017

Product code: LCK537-1

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

### 1.1. Product identifier

LCK 537 Nickel, LCK 537 A; 1/2

### 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 Corr. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

Causes severe skin burns and eye damage.

### 2.2. Label elements

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

#### Hazard components for labelling

sodium hydroxide; caustic soda

Signal word: Danger

Pictograms:



#### Hazard statements

H314

Causes severe skin burns and eye damage.

#### Precautionary statements

P280

Wear protective gloves/protective clothing/eye protection/face protection.

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P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately 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**

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%
	231-791-2			
1310-73-2	sodium hydroxide; caustic soda			< 20%
	215-185-5	011-002-00-6		
	Skin Corr. 1A; H314			
95-45-4	Dimethylglyoxime			< 1%
	202-420-1			
	Flam. Sol. 2, Acute Tox. 3; H228 H301			

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.  
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. If skin irritation persists, call a physician.

**After contact with eyes**

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

**After ingestion**

Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Consult a physician.

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

Causes severe burns. Cough, Shortness of breath, Spasm.

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

Treat symptomatically.

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### 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

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.

#### 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.  
After cleaning, flush away traces with water.

#### 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.

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

See also section 5

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

Observe label precautions.

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

##### **Requirements for storage rooms and vessels**

Keep containers dry and tightly closed to avoid moisture absorption and contamination.  
Storage temperature: 2-8 °C

##### **Hints on joint storage**

Do not store near acids.

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

Reagent for analysis

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

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**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
1310-73-2	Sodium hydroxide	-	2		STEL (15 min)	WEL

**Additional advice on limit values**

None known.

**8.2. Exposure controls**

**Appropriate engineering 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.

**Eye/face protection**

Safety glasses with side-shields

**Hand protection**

Use barrier skin cream.

Chemical resistant protective gloves

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Skin protection**

Avoid contact with skin, eyes and clothing.

**Respiratory protection**

Provide adequate ventilation.

**SECTION 9: Physical and chemical properties**

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

Physical state: liquid  
 Colour: colourless  
 Odour: odourless  
 pH-Value (at 20 °C): 14

**Changes in the physical state**

Melting point: - 17 °C  
 Initial boiling point and boiling range: 145 °C  
 Sublimation point: not applicable  
 Softening point: not applicable  
 Pour point: no data available  
 Flash point: not applicable

**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**

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Solid:	no data available
Gas:	no data available
Decomposition temperature:	no data available
<b>Oxidizing properties</b>	
not applicable	
Vapour pressure:	no data available
Density (at 20 °C):	1,145 g/cm <sup>3</sup>
Bulk density:	not applicable
Water solubility: (at 20 °C)	completely soluble
<b>Solubility in other solvents</b>	
no data available	
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

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reaction known under conditions of normal use. May be corrosive to metals.

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

Exothermic reaction with strong acids.

### 10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

### 10.5. Incompatible materials

Acids, Oxidizing agents, Light metals

### 10.6. Hazardous decomposition products

Gives off hydrogen by reaction with metals.

### **Further information**

Stable under recommended storage conditions.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### **Toxicokinetics, metabolism and distribution**

Angaben zur Toxikologie liegen nicht vor.

#### **Acute toxicity**

No data is available on the product itself.

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
95-45-4	Dimethylglyoxime				
	oral	LD50 mg/kg	200-500	rat	

**Irritation and corrosivity**

The product causes burns 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**

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 data is available on the product itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
1310-73-2	sodium hydroxide; caustic soda					
	Acute fish toxicity	LC50 mg/l	45,4	96 h Onchorhynchus mykiss		

**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**

No known effect.

**SECTION 13: Disposal considerations**
**13.1. Waste treatment methods**
**Advice on disposal**

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

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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)

**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



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

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#### 14.4. Packing group:

Hazard label:

II

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

Use personal protective equipment.

#### 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

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

### SECTION 16: Other information

#### Changes

Revision Date 21.03.2017

Safety datasheet sections which have been updated: 7, 14

Revision: 20.05.2015

Safety datasheet sections which have been updated: 2

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

H228

Flammable solid.

H301

Toxic if swallowed.

H314

Causes severe skin burns and eye damage.

#### 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.)*

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

LCK 537 Nickel, LCK 537 B; 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:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Resp. Sens. 1

Respiratory or skin sensitisation: Skin Sens. 1

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Harmful if swallowed.

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

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

May cause respiratory irritation.

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

diammonium peroxodisulphate; ammonium persulphate

**Signal word:** Danger

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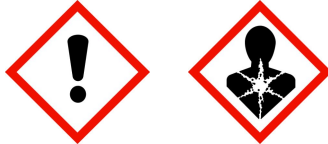
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**Pictograms:**



**Hazard statements**

- 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.

**Precautionary statements**

- P201 Obtain special instructions before use.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.
- 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**

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]			
7727-54-0	diammonium peroxodisulphate; ammonium persulphate			<70 %
	231-786-5	016-060-00-6		
	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			
77-92-9	Citric acid			>35 %
	201-069-1			
	Skin Irrit. 2, Eye Irrit. 2; H315 H319			

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 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.

#### 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

#### 5.1. Extinguishing media

##### Suitable extinguishing media

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

##### Unsuitable extinguishing media

High volume water jet

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

Fire may liberate hazardous vapours.

#### 5.3. Advice for firefighters

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.

### SECTION 6: Accidental release measures

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

Use personal protective equipment.  
Avoid contact with skin, eyes and clothing. Do not breathe dust or spray mist.

#### 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

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

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

##### Requirements for storage rooms and vessels

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

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Storage temperature: 2-8 °C

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

Reagent for analysis

### SECTION 8: Exposure controls/personal protection

#### **8.1. Control parameters**

##### **Additional advice on limit values**

None known.

#### **8.2. Exposure controls**

##### **Appropriate engineering 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.

##### **Eye/face protection**

Safety glasses with side-shields

##### **Hand protection**

Use barrier skin cream.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

##### **Skin protection**

Avoid contact with skin, eyes and clothing.

##### **Respiratory protection**

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

### SECTION 9: Physical and chemical properties

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

Physical state: solid  
Colour: colourless  
Odour: odourless

##### **Test method**

pH-Value (at 20 °C): 3,2

##### **Changes in the physical state**

Melting point: 60 °C Decomposition temperature

Initial boiling point and boiling range: not applicable

Sublimation point: no data available

Softening point: no data available

Pour point: no data available

Flash point: not applicable

##### **Flammability**

Solid: not applicable

Gas: not applicable

##### **Explosive properties**

not applicable

Lower explosion limits: not applicable

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Upper explosion limits:	not applicable
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):	no data available
Bulk density:	no data available
Water solubility: (at 20 °C)	completely soluble
<b>Solubility in other solvents</b>	
no data available	
Partition coefficient:	not applicable
Viscosity / dynamic:	not applicable
Viscosity / kinematic:	not applicable
Flow time:	not applicable
Vapour density:	not applicable
Evaporation rate:	not applicable
Solvent separation test:	not applicable
Solvent content:	not applicable
<b>9.2. Other information</b>	
Solid content:	no data available

## SECTION 10: Stability and reactivity

### **10.1. Reactivity**

See also section 10.3

### **10.2. Chemical stability**

Stable under recommended storage conditions.

### **10.3. Possibility of hazardous reactions**

Exothermic reaction: Iron, Zinc, Copper, Silver, Powdered metals

### **10.4. Conditions to avoid**

Heat.  
Keep away from combustible materials.

### **10.5. Incompatible materials**

Strong bases, Oxidizing agents

### **10.6. Hazardous decomposition products**

Carbon dioxide (CO<sub>2</sub>), Sulphur oxides, Ammonia

### **Further information**

Stable under recommended storage conditions.

## SECTION 11: Toxicological information

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**11.1. Information on toxicological effects**

**Toxicokinetics, metabolism and distribution**

Angaben zur Toxikologie liegen nicht vor.

**Acute toxicity**

No data is available on the product itself.

**ATEmix calculated**

ATE (oral) 1060,0 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7727-54-0	diammonium peroxodisulphate; ammonium persulphate				
	oral	LD50 689 mg/kg	Rat	GESTIS	
77-92-9	Citric acid				
	oral	LD50 3000 mg/kg	rat	IUCLID	
	dermal	LD50 >2000 mg/kg	rat	IUCLID	

**Irritation and corrosivity**

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

**Sensitising effects**

May cause sensitisation by skin contact. May produce an allergic reaction. Acute irritation of the respiratory system leading to tightness of the chest and an asthmatic condition. (diammonium peroxodisulphate; ammonium persulphate)

**Carcinogenic/mutagenic/toxic effects for reproduction**

Contains no ingredient listed as a carcinogen

**STOT-single exposure**

May cause respiratory tract irritation. (diammonium peroxodisulphate; ammonium persulphate)

**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 data is available on the product itself.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7727-54-0	diammonium peroxodisulphate; ammonium persulphate					
	Acute fish toxicity	LC50	76 mg/l	96 h	Onchorhynchus mykiss	
	Acute crustacea toxicity	EC50	120 mg/l	48 h	Daphnia magna	
77-92-9	Citric acid					
	Acute fish toxicity	LC50	440-760 mg/l	96 h	Leuciscus idus (Golden orfe)	
	Acute crustacea toxicity	EC50	160 mg/l	48 h	Crustacea	

**12.2. Persistence and degradability**

No data is available on the product itself.

CAS No	Chemical name				
	Method	Value	d	Source	
	Evaluation				
77-92-9	Citric acid				
	OECD Test Guideline 302	98 %	2	IUCLID	
	Biochemical Oxygen Demand (BOD)	526 mg/g	5	IUCLID	

**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**

No known effect.

**SECTION 13: Disposal considerations**
**13.1. Waste treatment methods**
**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 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)**



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**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



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

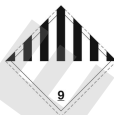
#### Inland waterways transport (ADN)

##### 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

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IATA-max. quantity - Cargo: 10 kg

#### **14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

#### **14.6. Special precautions for user**

Use personal protective equipment.

#### **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**

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

### SECTION 16: Other information

#### **Changes**

Revision Date 21.03.2017

Safety datasheet sections which have been updated: 7, 14

Revision: 20.05.2015

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.

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