

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Reagent 130+R5301

Revision date: 01.06.2023

Product code: 130+R5301

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

### 1.1. Product identifier

Reagent 130+R5301

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

#### Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

#### Uses advised against

Do not use for private purposes (household).

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

Company name:	AnalytiChem GmbH	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
E-mail:	info@analytichem.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
E-mail:	produktsicherheit@analytichem.de	
Internet:	www.analytichem.de	
Responsible Department:	Abteilung Produktsicherheit	

### 1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

### Further Information

This product is a mixture. REACH Registration Number see section 3.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

Resp. Sens. 1; H334

Skin Sens. 1; H317

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

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

#### Hazard components for labelling

potassium persulphate

Signal word: Danger

#### Pictograms:



#### Hazard statements

H334

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

H317

May cause an allergic skin reaction.

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#### Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Chemical characterization

Mixtures in aqueous solution

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7727-21-1	potassium persulphate			1 - < 5 %
	231-781-8	016-061-00-1	01-2119495676-19	
	Ox. Sol. 3, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3; H272 H302 H315 H319 H334 H317 H335			

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

##### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
7727-21-1	231-781-8	potassium persulphate	1 - < 5 %
	inhalation: LC50 = >= 2,95 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 742 mg/kg		

##### Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

No data available

##### After inhalation

Provide fresh air.  
 Call a doctor if you feel unwell.

##### After contact with skin

Wash immediately with: Water  
 Take off immediately all contaminated clothing and wash it before reuse.  
 Call a physician immediately.

##### After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.  
 Remove contact lenses, if present and easy to do. Continue rinsing.  
 Protect uninjured eye.

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#### After ingestion

Rinse mouth immediately and drink plenty of water.  
Call a physician immediately.

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

Allergic reactions

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

No data available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

#### Unsuitable extinguishing media

no restriction

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

Non-combustible liquids  
Hazardous combustion products  
In case of fire may be liberated:  
Sulphur oxides

### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.  
In case of fire and/or explosion do not breathe fumes.  
Avoid contact with skin, eyes and clothes.

#### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.  
Move undamaged containers from immediate hazard area if it can be done safely.  
Use water spray jet to protect personnel and to cool endangered containers.

## SECTION 6: Accidental release measures

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

#### For non-emergency personnel

Provide adequate ventilation.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Remove persons to safety.  
Emergency procedures  
Do not breathe dust/fume/gas/mist/vapours/spray.

#### For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

#### For containment

Cover drains.  
Prevent spread over a wide area (e.g. by containment or oil barriers).  
Collect in closed and suitable containers for disposal.  
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

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#### Other information

Provide adequate ventilation.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

#### 6.4. Reference to other sections

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Read label before use.  
When using do not eat, drink, smoke, sniff.  
Handle and open container with care.  
Use personal protection equipment.  
Provide adequate ventilation.  
Do not breathe vapour/aerosol.  
Avoid contact with skin, eyes and clothes.

#### Advice on protection against fire and explosion

Usual measures for fire prevention.

#### Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately.  
Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

#### Further information on handling

Draw up and observe skin protection programme.  
Wash hands and face before breaks and after work and take a shower if necessary.  
Take off immediately all contaminated clothing and wash it before reuse.

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

#### Requirements for storage rooms and vessels

storage temperature 18-25°C  
Protect against: Light

#### Further information on storage conditions

Keep container tightly closed.

### 7.3. Specific end use(s)

Laboratory chemicals

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
7727-21-1	Persulphate salts, inorganic; Potassium persulphate	-	0.1		TWA (8 h)	

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**DNEL/DMEL values**

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
7727-21-1	potassium persulphate		
Worker DNEL, long-term	inhalation	systemic	2,06 mg/m <sup>3</sup>
Worker DNEL, acute	inhalation	systemic	590 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation	local	2,06 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	18,2 mg/kg bw/day
Worker DNEL, acute	dermal	systemic	400 mg/kg bw/day
Worker DNEL, long-term	dermal	local	0,102 mg/cm <sup>2</sup>
Worker DNEL, acute	dermal	local	2,248 mg/cm <sup>2</sup>
Consumer DNEL, long-term	inhalation	systemic	1,03 mg/m <sup>3</sup>
Consumer DNEL, acute	inhalation	systemic	295 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation	local	1,03 mg/m <sup>3</sup>
Consumer DNEL, acute	inhalation	local	295 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	9,1 mg/kg bw/day
Consumer DNEL, acute	dermal	systemic	200 mg/kg bw/day
Consumer DNEL, long-term	dermal	local	0,051 mg/cm <sup>2</sup>
Consumer DNEL, acute	dermal	local	1,124 mg/cm <sup>2</sup>
Consumer DNEL, long-term	oral	systemic	9,1 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	30 mg/kg bw/day

**PNEC values**

CAS No	Substance	
Environmental compartment	Value	
7727-21-1	potassium persulphate	
Freshwater	0,076 mg/l	
Freshwater (intermittent releases)	0,763 mg/l	
Marine water	0,011 mg/l	
Freshwater sediment	0,275 mg/kg	
Marine sediment	0,04 mg/kg	
Micro-organisms in sewage treatment plants (STP)	3,6 mg/l	
Soil	0,015 mg/kg	

**8.2. Exposure controls**

**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

goggles

Wear eye/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the

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specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing.  
Wash hands before breaks and after work.

#### Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

#### Thermal hazards

No data available

#### Environmental exposure controls

Do not allow to enter into surface water or drains.

## SECTION 9: Physical and chemical properties

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

Physical state:	Liquid	
Colour:	colourless	
Odour:	odourless	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		?
Flammability:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		No data available
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		not determined
Viscosity / kinematic:		No data available
Solubility in other solvents		
not determined		
Dissolution rate:		No data available
Partition coefficient n-octanol/water:		No data available
Dispersion stability:		No data available
Vapour pressure:		<=1100 hPa
(at 50 °C)		
Vapour pressure:		No data available
Density:		1,01100 g/cm <sup>3</sup>
Relative density:		No data available
Bulk density:		No data available
Relative vapour density:		No data available
Particle characteristics:		No data available

### 9.2. Other information

#### Information with regard to physical hazard classes

Explosive properties	
No data available	
Sustaining combustion:	No data available
Self-ignition temperature	
Solid:	not applicable
Gas:	not applicable

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Oxidizing properties

Not oxidising.

#### Other safety characteristics

Evaporation rate:	not determined
Solvent separation test:	No data available
Solvent content:	0
Solid content:	not determined
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
No data available:	
Viscosity / dynamic:	No data available
Flow time:	No data available

#### Further Information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

### 10.2. Chemical stability

storage temperature 18-25°C

Protect against: Light

### 10.3. Possibility of hazardous reactions

No known hazardous reactions.

### 10.4. Conditions to avoid

Light

Radiant heat.

### 10.5. Incompatible materials

No information available.

### 10.6. Hazardous decomposition products

In case of fire may be liberated:

SECTION 5: Firefighting measures

#### Further information

No data available

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Toxicokinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

#### Acute toxicity

Based on available data, the classification criteria are not met.

#### ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7727-21-1	potassium persulphate				
	oral	LD50 mg/kg 742	Rat	Study report (2001)	EPA OPPTS 870.1100
	dermal	LD50 mg/kg > 2000	Rat	Study report (1991)	EPA OPP 81-2
	inhalation (4 h) dust/mist	LC50 mg/l >= 2,95	Rat	Study report (1989)	EPA OPP 81-3

**Irritation and corrosivity**

Based on available data, the classification criteria are not met.

**Sensitising effects**

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (potassium persulphate)

May cause an allergic skin reaction. (potassium persulphate)

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

Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Information on likely routes of exposure**

There are no data available on the preparation/mixture itself.

**Specific effects in experiment on an animal**

There are no data available on the preparation/mixture itself.

**Additional information on tests**

There are no data available on the preparation/mixture itself.

**Practical experience**

There are no data available on the preparation/mixture itself.

**11.2. Information on other hazards**

**Endocrine disrupting properties**

There are no data available on the preparation/mixture itself.

**Other information**

There are no data available on the preparation/mixture itself.

**Further information**

There are no data available on the preparation/mixture itself.

**SECTION 12: Ecological information**

**12.1. Toxicity**

Based on available data, the classification criteria are not met.

There are no data available on the mixture itself.



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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7727-21-1	potassium persulphate					
	Acute fish toxicity	LC50 mg/l	76,3	96 h	Oncorhynchus mykiss	Study report (1993) other: FIFRA Guideline 72-1 of the Pesti
	Acute algae toxicity	ErC50	136 mg/l	72 h	Phaeodactylum tricornutum	Study report OECD Guideline 201
	Acute crustacea toxicity	EC50	120 mg/l	48 h	Daphnia magna	Study report (1993) other: FIFRA Guideline 72-2 of the Pesti

**12.2. Persistence and degradability**

There are no data available on the preparation/mixture itself.

**12.3. Bioaccumulative potential**

There are no data available on the preparation/mixture itself.

**12.4. Mobility in soil**

There are no data available on the preparation/mixture itself.

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

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

There are no data available on the mixture itself.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

Discharge into the environment must be avoided.

**Further information**

Do not allow to enter into surface water or drains.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not empty into drains.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

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**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### Marine transport (IMDG)

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

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

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

No information available.

#### 14.7. Maritime transport in bulk according to IMO instruments

not applicable

### SECTION 15: Regulatory information

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

##### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

##### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

#### 15.2. Chemical safety assessment

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

### SECTION 16: Other information

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#### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
Ox. Sol: Oxidising solid  
Acute Tox: Acute toxicity  
Skin Irrit: Skin irritation  
Eye Irrit: Eye irritation  
Resp. Sens: Respiratory sensitisation  
Skin Sens: Skin sensitisation  
STOT SE: Specific target organ toxicity - single exposure

#### 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 above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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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.)*