

Oxidations-Reagenzlösung zur photometrischen Nickel-Bestimmung EZ1027-Serie

Revision: 05.12.2024

Product code: 33334

Page 1 of 12

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

Oxidations-Reagenzlösung zur photometrischen Nickel-Bestimmung EZ1027-Serie

UFI: 5V9Y-Q2QV-300F-VN3S

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

Reagents and laboratory chemicals

Only for laboratory and analysis purposes.

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
	ACD
Street:	Stempelstraße 6
Place:	D-47167 Duisburg
Telephone:	0203/5194-0
E-mail:	info@analytichem.de
Contact person:	Abteilung Produktsicherheit
E-mail:	produktsicherheit@analytichem.de
Internet:	www.analytichem.de
Responsible Department:	Abteilung Produktsicherheit

Telefax: 0203/5194-290

Telephone: 0203/5194-107/117

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTRAC 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**

Ox. Liq. 3; H272

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**

disodium peroxodisulphate

Signal word: Danger

Pictograms:



Oxidations-Reagenzlösung zur photometrischen Nickel-Bestimmung EZ1027-Serie

Revision: 05.12.2024

Product code: 33334

Page 2 of 12

Hazard statements

H272 May intensify fire; oxidiser.
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 Keep away from clothing and other combustible materials.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Chemical characterization**

Mixtures in aqueous solution

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
Classification (Regulation (EC) No 1272/2008)				
7775-27-1	disodium peroxodisulphate			5 - < 10 %
	231-892-1		01-2119495975-15	
	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			
7775-27-1	231-892-1	disodium peroxodisulphate	5 - < 10 %
inhalation: LC50 = > 2,95 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 1200 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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Oxidations-Reagenzlösung zur photometrischen Nickel-Bestimmung EZ1027-Serie

Revision: 05.12.2024

Product code: 33334

Page 3 of 12

Take off immediately all contaminated clothing and wash it before reuse.

In case of skin irritation, consult a physician.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

Remove contact lenses, if present and easy to do. Continue rinsing.

Consult an ophthalmologist.

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

Irritant

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

Oxidizing

Hazardous combustion products

In case of fire may be liberated:

Sulphur oxides

5.3. Advice for firefighters

Avoid contact with skin, eyes and clothes.

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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

Consult an expert

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

Oxidations-Reagenzlösung zur photometrischen Nickel-Bestimmung EZ1027-Serie

Revision: 05.12.2024

Product code: 33334

Page 4 of 12

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.

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.
- Handle and open container with care.
- Provide adequate ventilation.
- Avoid contact with skin, eyes and clothes.
- Do not breathe vapour/aerosol.

Advice on protection against fire and explosion

- Keep away from combustible material.

Advice on general occupational hygiene

- Take off contaminated clothing.
- Wash hands before breaks and after work.
- When using do not eat or drink.

Further information on handling

- Take off contaminated clothing and wash it before reuse.
- Wash hands before breaks and after work.
- Draw up and observe skin protection programme.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

- Keep container tightly closed and dry.
- Close containers in such a way to enable internal pressure to escape (e.g. excess pressure valve).

Hints on joint storage

- Keep away from combustible material.
- national regulations

Further information on storage conditions

- Keep cool. Protect from sunlight.
- Protect against: Light, Heat

7.3. Specific end use(s)

- Laboratory chemicals

SECTION 8: Exposure controls/personal protection

Oxidations-Reagenzlösung zur photometrischen Nickel-Bestimmung EZ1027-Serie

Revision: 05.12.2024

Product code: 33334

Page 5 of 12

8.1. Control parameters**Occupational exposure limits**

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
7775-27-1	Persulphate salts, inorganic; Sodium persulphate	-	0.1		TWA (8 h)	

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
7775-27-1	disodium peroxodisulphate			
Worker DNEL, long-term		inhalation	systemic	2,06 mg/m ³
Worker DNEL, acute		inhalation	systemic	590 mg/m ³
Worker DNEL, long-term		inhalation	local	2,06 mg/m ³
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 ²
Worker DNEL, acute		dermal	local	2,248 mg/cm ²
Consumer DNEL, long-term		inhalation	systemic	1,03 mg/m ³
Consumer DNEL, acute		inhalation	systemic	295 mg/m ³
Consumer DNEL, long-term		inhalation	local	1,03 mg/m ³
Consumer DNEL, acute		inhalation	local	295 mg/m ³
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 ²
Consumer DNEL, acute		dermal	local	1,124 mg/cm ²
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	Value
Environmental compartment		
7775-27-1	disodium peroxodisulphate	
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.

Individual protection measures, such as personal protective equipment

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Oxidations-Reagenzlösung zur photometrischen Nickel-Bestimmung EZ1027-Serie

Revision: 05.12.2024

Product code: 33334

Page 6 of 12

Eye/face protection

Suitable eye protection: goggles.

Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Wear suitable protective clothing.

Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

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:	No data available
Flammability:	not applicable
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	X
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value:	3,3

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Oxidations-Reagenzlösung zur photometrischen Nickel-Bestimmung EZ1027-Serie

Revision: 05.12.2024

Product code: 33334

Page 7 of 12

Viscosity / kinematic:	No data available
Water solubility:	very soluble
Solubility in other solvents	
not determined	
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	No data available
Vapour pressure:	No data available
Density:	1,0637 g/cm ³
Bulk density:	No data available
Relative vapour density:	not determined

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

 No data available

Sustained combustibility:

No data available

Self-ignition temperature

 Solid:

No data available

 Gas:

not applicable

Oxidizing properties

 The product is: oxidising, Oxidising.

Other safety characteristics

Evaporation rate:

not determined

Solvent separation test:

No data available

Solvent content:

No data available

Solid content:

No data available

Sublimation point:

No data available

Softening point:

No data available

Pour point:

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

Oxidizing

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

Protect against:

 Heat

 Light

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

 Heat

 Light

10.5. Incompatible materials

No data available

Oxidations-Reagenzlösung zur photometrischen Nickel-Bestimmung EZ1027-Serie

Revision: 05.12.2024

Product code: 33334

Page 8 of 12

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 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

CAS No	Chemical name					
	Exposure route	Dose	Species	Source	Method	
7775-27-1	disodium peroxodisulphate					
	oral	LD50 mg/kg	1200	Rat	Study report (1979)	OECD Guideline 401
	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

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (disodium peroxodisulphate)

May cause an allergic skin reaction. (disodium peroxodisulphate)

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

Reproductive toxicity: 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.

Specific effects in experiment on an animal

There are no data available on the mixture itself.

Additional information on tests

There are no data available on the mixture itself.

Practical experience

There are no data available on the mixture itself.

11.2. Information on other hazards

Oxidations-Reagenzlösung zur photometrischen Nickel-Bestimmung EZ1027-Serie

Revision: 05.12.2024

Product code: 33334

Page 9 of 12

Endocrine disrupting properties

There are no data available on the mixture itself.

Other information

There are no data available on the mixture itself.

Further information

There are no data available on the mixture itself.

SECTION 12: Ecological information**12.1. Toxicity**

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

CAS No	Chemical name	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
7775-27-1	disodium peroxodisulphate						
	Acute fish toxicity	LC50 76,3 mg/l	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 (1992)	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

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

12.4. Mobility in soil

There are no data available on the 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.

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

Do not allow to enter into surface water or drains.

Further information

Avoid release to the environment.

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 hazardous waste incinerator facility under observation of official regulations.

Do not mix with other wastes.

Do not empty into drains.

Contaminated packaging

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Oxidations-Reagenzlösung zur photometrischen Nickel-Bestimmung EZ1027-Serie

Revision: 05.12.2024

Product code: 33334

Page 10 of 12

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

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 3216
14.2. UN proper shipping name:	PERSULPHATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.
14.3. Transport hazard class(es):	5.1
14.4. Packing group:	III
Hazard label:	5.1
Classification code:	O1
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	50
Tunnel restriction code:	E

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 3216
14.2. UN proper shipping name:	PERSULPHATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.
14.3. Transport hazard class(es):	5.1
14.4. Packing group:	III
Hazard label:	5.1
Classification code:	O1
Limited quantity:	5 L
Excepted quantity:	E1

Marine transport (IMDG)

14.1. UN number or ID number:	UN 3216
14.2. UN proper shipping name:	PERSULPHATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.
14.3. Transport hazard class(es):	5.1
14.4. Packing group:	III
Hazard label:	5.1
Special Provisions:	-
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-Q
Segregation group:	heavy metals and their salts (including their organometallic compounds)

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 3216
14.2. UN proper shipping name:	PERSULPHATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.
14.3. Transport hazard class(es):	5.1
14.4. Packing group:	III
Hazard label:	5.1
Special Provisions:	A803
Limited quantity Passenger:	1 L
Passenger LQ:	Y541
Excepted quantity:	E1
IATA-packing instructions - Passenger:	551
IATA-max. quantity - Passenger:	2.5 L
IATA-packing instructions - Cargo:	555
IATA-max. quantity - Cargo:	30 L

14.5. Environmental hazards

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Oxidations-Reagenzlösung zur photometrischen Nickel-Bestimmung EZ1027-Serie

Revision: 05.12.2024

Product code: 33334

Page 11 of 12

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: Oxidising substances.

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

Information according to Directive 2012/18/EU (SEVESO III): P8 OXIDISING LIQUIDS AND SOLIDS

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

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,9,12.

Abbreviations and acronyms

Ox. Liq. 3: Oxidising liquids, hazard category 3

Ox. Sol. 3: Oxidising solids, hazard category 3

Acute Tox. 4: Acute toxicity, hazard category 4

Skin Irrit. 2: Skin irritation, hazard category 2

Eye Irrit. 2: Eye irritation, hazard category 2

Resp. Sens. 1: Respiratory sensitisation, hazard category 1

Skin Sens. 1: Skin sensitisation, hazard category 1

STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3

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%

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Ox. Liq. 3; H272	On basis of test data
Resp. Sens. 1; H334	Calculation method
Skin Sens. 1; H317	Calculation method

Relevant H and EUH statements (number and full text)

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Oxidations-Reagenzlösung zur photometrischen Nickel-Bestimmung EZ1027-Serie

Revision: 05.12.2024

Product code: 33334

Page 12 of 12

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.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Provide appropriate information, instructions and training to users

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