

Zinc sulphate solution 0,1 mol/l - 0,1 N volumetric standard solution

article number: **P723** Version: **3.0 en** Replaces version of: 2020-08-19 Version: (2)

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

1.1 Product identifier

Identification of the substance

Article number

P723

Registration number (REACH)

not relevant (mixture)

ric standard solution

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

Relevant identified uses:

Uses advised against:

Laboratory chemical Laboratory and analytical use

Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

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1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co KG Schoemperlenstr. 3-5 D-76185 Karlsruhe Germany

Telephone:+49 (0) 721 - 56 06 0 **Telefax:** +49 (0) 721 - 56 06 149 **e-mail:** sicherheit@carlroth.de **Website:** www.carlroth.de

Competent person responsible for the safety data :Department Health, Safety and Environment sheet:

e-mail (competent person):

sicherheit@carlroth.de

1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
National Poisons Information Service City Hospital	Dudley Rd	B187QH Birmingham	844 892 0111	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
3.3	Serious eye damage/eye irritation	2	Eye Irrit. 2	H319
4.1C	Hazardous to the aquatic environment - chronic hazard	2	Aquatic Chronic 2	H411

For full text of abbreviations: see SECTION 16

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according to Regulation (EC) No. 1907/2006 (REACH)



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The most important adverse physicochemical, human health and environmental effects Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word Warning

Pictograms

GHS07, GHS09



Hazard statements

H319	Causes serious eye irritation
H411	Toxic to aquatic life with long lasting effects

Precautionary statements

Precautionary statements - prevention

P273	Avoid release to the environment
P280	Wear protective gloves/eye protection/face protection

Precautionary statements - response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
	lenses, if present and easy to do. Continue rinsing
P337+P313	If eye irritation persists: Get medical advice/attention

Precautionary statements - disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations

Labelling of packages where the contents do not exceed 125 ml

Signal word: Warning





2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

according to Regulation (EC) No. 1907/2006 (REACH)



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SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of sub- stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Zinc sulphate heptahy- drate	CAS No 7446-20-0 EC No 231-793-3 Index No 030-006-00-9 REACH Reg. No 01-2119474684- 27-xxxx	2,5 - < 5	Acute Tox. 4 / H302 Eye Dam. 1 / H318 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410		GHS-HC

Notes

GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/ 2008/EC, Annex VI)

Name of sub- stance	Identifier	Specific Conc. Limits	M-Factors	ATE	Exposure route
Zinc sulphate heptahydrate	CAS No 7446-20-0	-	-	926 ^{mg} / _{kg}	oral
	EC No 231-793-3				
	Index No 030-006-00-9				

For full text of abbreviations: see SECTION 16

SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

Take off contaminated clothing.

Following inhalation

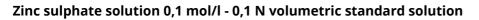
Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact

Rinse skin with water/shower.

Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.



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Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

- **4.2 Most important symptoms and effects, both acute and delayed** Irritation
- **4.3 Indication of any immediate medical attention and special treatment needed** none

SECTION 5: Firefighting measures

5.1 Extinguishing media



Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Non-combustible.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures



For non-emergency personnel

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.

Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Other information relating to spills and releases

Place in appropriate containers for disposal.



according to Regulation (EC) No. 1907/2006 (REACH)



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6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

No special measures are necessary.

Measures to protect the environment

Avoid release to the environment.

Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

Incompatible substances or mixtures

Observe hints for combined storage.

Consideration of other advice:

Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

This information is not available.

Relevant DNELs of components of the mixture									
Name of sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time			
Zinc sulphate hep- tahydrate	7446-20-0	DNEL	1 mg/m³	human, inhalat- ory	worker (industry)	chronic - systemic effects			
Zinc sulphate hep- tahydrate	7446-20-0	DNEL	8,3 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects			

Relevant PNECs of components of the mixture

Name of su stance	ıb-	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time
Zinc sulphate h tahydrate		7446-20-0	PNEC	20,6 ^{µg} / _l	aquatic organ- isms	freshwater	short-term (single instance)
Zinc sulphate h tahydrate		7446-20-0	PNEC	6,1 ^{µg} / _l	aquatic organ- isms	marine water	short-term (single instance)

according to Regulation (EC) No. 1907/2006 (REACH)



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Relevant PNECs of components of the mixture									
Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time			
Zinc sulphate hep- tahydrate	7446-20-0	PNEC	100 ^{µg} / _l	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)			
Zinc sulphate hep- tahydrate	7446-20-0	PNEC	117,8 ^{mg} / _{kg}	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)			
Zinc sulphate hep- tahydrate	7446-20-0	PNEC	56,5 ^{mg} / _{kg}	aquatic organ- isms	marine sediment	short-term (single instance)			
Zinc sulphate hep- tahydrate	7446-20-0	PNEC	35,6 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single instance)			

8.2 Exposure controls

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggle with side protection.

Skin protection



hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. 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. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a consider-able reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

• type of material

NBR (Nitrile rubber)

- material thickness
- >0,11 mm

• breakthrough times of the glove material

>480 minutes (permeation: level 6)

other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

according to Regulation (EC) No. 1907/2006 (REACH)

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Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Usually no personal respirative protection necessary.

Environmental exposure controls

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless
Odour	odourless
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	100 °C
Flammability	non-combustible
Lower and upper explosion limit	not determined
Flash point	not determined
Auto-ignition temperature	not determined
Decomposition temperature	not relevant
pH (value)	not determined (neutral)
Kinematic viscosity	not determined
Solubility(ies)	
Water solubility	miscible in any proportion
Partition coefficient	
Partition coefficient n-octanol/water (log value):	not relevant (inorganic)
Vapour pressure	23 hPa at 20 °C
Density and/or relative density	
Density	1,015 ^g / _{cm³} at 20 °C
Relative vapour density	information on this property is not available
Particle characteristics	not relevant (liquid)



according to Regulation (EC) No. 1907/2006 (REACH)

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Other safety parameters Oxidising properties

9.2 Other information

Information with regard to physical hazard classes:

Other safety characteristics:

Miscibility

completely miscible with water

(physical hazards): not relevant

hazard classes acc. to GHS

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

There is no additional information.

10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

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

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components of the mixture							
Name of substance CAS No Exposure route ATE							
Zinc sulphate heptahydrate	7446-20-0	oral	926 ^{mg} / _{kg}				

none

according to Regulation (EC) No. 1907/2006 (REACH)



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Acute toxicity of components of the mixture						
Name of substance	CAS No	Exposure route	Endpoint	Value	Species	
Zinc sulphate heptahydrate	7446-20-0	oral	LD50	926 ^{mg} / _{kg}	mouse	
Zinc sulphate heptahydrate	7446-20-0	dermal	LD50	>2.000 ^{mg} / _{kg}	rat	

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

• If swallowed

Data are not available.

• If in eyes

Causes serious eye irritation

If inhaled

Data are not available.

• If on skin

Data are not available.

Other information

none

11.2 Endocrine disrupting properties None of the ingredients are listed.

11.3 Information on other hazards

There is no additional information.

according to Regulation (EC) No. 1907/2006 (REACH)



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SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture							
Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time		
Zinc sulphate heptahy- drate	7446-20-0	LC50	112 ^{µg} / _l	fish	96 h		
Zinc sulphate heptahy- drate	7446-20-0	EC50	360 ^{µg} / _I	aquatic invertebrates	48 h		

Aquatic toxicity (chronic) of components of the mixture

Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time
Zinc sulphate heptahy- drate	7446-20-0	EC50	5,2 ^{mg} / _l	microorganisms	3 h

Biodegradation

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

12.2 Process of degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components of the mixture						
Name of substance	CAS No	BCF	Log KOW	BOD5/COD		
Zinc sulphate heptahydrate	7446-20-0	96,05				

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment Data are not available.

12.6 Endocrine disrupting properties None of the ingredients are listed.

12.7 Other adverse effects

Data are not available.

according to Regulation (EC) No. 1907/2006 (REACH)

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SECTION 13: Disposal considerations

13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Waste catalogue ordinance (Germany).

13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1	UN number or ID number	
	ADRRID	UN 3082
	IMDG-Code	UN 3082
	ICAO-TI	UN 3082
14.2	UN proper shipping name	
	ADRRID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LI- QUID, N.O.S.
	IMDG-Code	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LI- QUID, N.O.S.
	ICAO-TI	Environmentally hazardous substance, liquid, n.o.s.
	Technical name (hazardous ingredients)	Zinc sulphate heptahydrate
14.3	Transport hazard class(es)	
	ADRRID	9
	IMDG-Code	9
	ICAO-TI	9
14.4	Packing group	
	ADRRID	III
	IMDG-Code	III
	ICAO-TI	III



according to Regulation (EC) No. 1907/2006 (REACH)



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14.5	Environmental hazards	hazardous to the aquatic environment				
- - .J	Environmentally hazardous substance (aquatic	Zinc sulphate heptahydrate				
	environment):					
4.6	Special precautions for user					
	Provisions for dangerous goods (ADR) should be complied within the premises.					
4.7						
	The cargo is not intended to be carried in bulk.					
4.8	Information for each of the UN Model Regulat	ions				
	Transport of dangerous goods by road, rail and information	d inland waterway (ADR/RID/ADN) - Additional				
	Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, L QUID, N.O.S.				
	Particulars in the transport document	UN3082, ENVIRONMENTALLY HAZARDOUS SUB- STANCE, LIQUID, N.O.S., (contains: Zinc sulphate heptahydrate), 9, III, (-)				
	Classification code	M6				
	Danger label(s)	9, "Fish and tree"				
	Environmental hazards	Yes (hazardous to the aquatic environment)				
	Special provisions (SP)	274, 335, 375, 601				
	Excepted quantities (EQ)	E1				
	Limited quantities (LQ)	5 L				
	Transport category (TC)	3				
	Tunnel restriction code (TRC)	-				
	Hazard identification No	90				
	Emergency Action Code	3Z				
	Regulations concerning the International Carr information	iage of Dangerous Goods by Rail (RID)Additional				
	Classification code	9				
	Danger label(s)	9 Fish and tree				
	Environmental hazards	Yes Hazardous to water				
	Special provisions (SP)	274, 335, 375, 601				
	Excepted quantities (EQ)	E1				
	Limited quantities (LQ)	5 L				
	Transport category (TC)	3				

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Hazard identification No	90
International Maritime Dangerous Goods Code	(IMDG) - Additional information
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LI- QUID, N.O.S.
Particulars in the shipper's declaration	UN3082, ENVIRONMENTALLY HAZARDOUS SUB- STANCE, LIQUID, N.O.S., (contains: Zinc sulphate heptahydrate), 9, III
Marine pollutant	Yes (hazardous to the aquatic environment), (Zinc sulphate heptahydrate)
Danger label(s)	9, "Fish and tree"
Special provisions (SP)	274, 335, 969
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-A, S-F
Stowage category	A
International Civil Aviation Organization (ICAO	-IATA/DGR) - Additional information
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Particulars in the shipper's declaration	UN3082, Environmentally hazardous substance, liquid, n.o.s., (contains: Zinc sulphate heptahy- drate), 9, III
Environmental hazards	Yes (hazardous to the aquatic environment)
Danger label(s)	9, "Fish and tree"
Special provisions (SP)	A97, A158, A197, A215
Excepted quantities (EQ)	E1
Limited quantities (LQ)	30 kg

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

ngerous substances with restrictions (REACH, Annex XVII)					
Name of substance	Name acc. to inventory	CAS No	Restriction	N	
Zinc sulphate solution	this product meets the criteria for classification in accordance with Reg- ulation No 1272/2008/EC		R3	3	

according to Regulation (EC) No. 1907/2006 (REACH)



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Dangerous substances with restrictions (REACH, Annex XVII)				
Name of substance	Name acc. to inventory	CAS No	Restriction	No
Zinc sulphate heptahydrate	substances in tattoo inks and perman- ent make-up		R75	75

Legend R3

1. Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in orna-mental lamps and ashtrays,

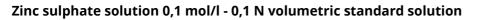
- tricks and jokes,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
2. Articles not complying with paragraph 1 shall not be placed on the market.
3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume,

or both, if they

can be used as fuel in decorative oil lamps for supply to the general public, and
present an aspiration hazard and are labelled with H304.
Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation

(CEN).
5. Without prejudice to the implementation of other Union provisions relating to the classification, labelling and pack5. Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:

ments are met: (a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil – or even sucking the wick of lamps – may lead to life-threatening lung damage"; (b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter fluid may lead to life threatening lung damage'; (c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.';



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8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.



according to Regulation (EC) No. 1907/2006 (REACH)



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9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).

10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

None of the ingredients are listed.

Seveso Directive

2012/	2012/18/EU (Seveso III)						
Νο	Dangerous substance/hazard categories	Qualifying quantity (tor plication of lower and quiremen	upper-tier re-	Notes			
E2	environmental hazards (hazardous to the aquatic en- vironment, cat. 2)	200	500	57)			

Notation

57) Hazardous to the Aquatic Environment in category Chronic 2

Deco-Paint Directive

VOC content	0 % 0 ⁹ /1
	0 %

Industrial Emissions Directive (IED)

VOC content	0 %
VOC content (Water content was discounted)	0 ^g / _l

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

Water Framework Directive (WFD)

List of pollutants (WFD)				
Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks
Zinc sulphate heptahydrate	Metals and their compounds		a)	

Legend

A) Indicative list of the main pollutants

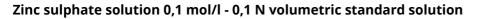
Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

Regulation on drug precursors

none of the ingredients are listed

according to Regulation (EC) No. 1907/2006 (REACH)



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Regulation on substances that deplete the ozone layer (ODS)

none of the ingredients are listed

Regulation concerning the export and import of hazardous chemicals (PIC)

none of the ingredients are listed

Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

National inventories

Country	Inventory	Status
AU	AICS	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed

Legend

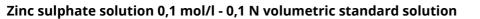
AICS Australian Inventory of Chemical Substances CICR Chemical Inventory and Control Regulation CSCL-ENCS List of Existing and New Chemical Substances (CSCL-ENCS) DSL Domestic Substances List (DSL) ECSI EC Substance Inventory (EINECS, ELINCS, NLP) IECSC Inventory of Existing Chemical Substances Produced or Imported in China INSQ National Inventory of Chemical Substances ISHA-ENCS Inventory of Existing and New Chemical Substances (ISHA-ENCS) KECI Korea Existing Chemicals Inventory NZIOC New Zealand Inventory of Chemicals PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS) REACH Reg. REACH registered substances TCSI Taiwan Chemical Substance Inventory TSCA Toxic Substance Control Act

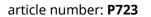
15.2 Chemical Safety Assessment

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



according to Regulation (EC) No. 1907/2006 (REACH)





SECTION 16: Other information

Indication of changes (revised safety data sheet)

Alignment to regulation: Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

Restructuring: section 9, section 14

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.1		Classification according to Regulation (EC) No 1272/2008 (CLP): change in the listing (table)	yes
2.1		The most important adverse physicochemical, human health and environmental effects: Spillage and fire water can cause pollution of watercourses.	yes
2.3	Other hazards: There is no additional information.	Other hazards	yes
2.3		Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de naviga- tion intérieures (European Agreement concerning the International Carriage of Dangerous Goods by In- land Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concern- ing the International Carriage of Dangerous Goods by Road)
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identi- fier of substances commercially available within the EU (European Union)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances



according to Regulation (EC) No. 1907/2006 (REACH)



Zinc sulphate solution 0,1 mol/l - 0,1 N volumetric standard solution

article number: **P723**

Abbr.	Descriptions of used abbreviations
EmS	Emergency Schedule
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
log KOW	n-Octanol/water
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)
SVHC	Substance of Very High Concern
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties. The classification is based on tested mixture. Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

according to Regulation (EC) No. 1907/2006 (REACH)



Zinc sulphate solution 0,1 mol/l - 0,1 N volumetric standard solution

article number: P723

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text	
H302	Harmful if swallowed.	
H318	Causes serious eye damage.	
H319	Causes serious eye irritation.	
H400	Very toxic to aquatic life.	
H410	Very toxic to aquatic life with long lasting effects.	
H411	Toxic to aquatic life with long lasting effects.	

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.