



# Sulphate Standard Solution R1 (10 ppm SO<sub>4</sub>) as Specified in Appendix 1C of the British Pharmacopoeia (BPS 464)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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:

Version: 1.1

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

### 1.1. Product identifier

Product form : Mixture  
Name : Sulphate Standard Solution R1 (10 ppm SO<sub>4</sub>)  
as Specified in Appendix 1C of the British Pharmacopoeia  
(BPS 464)  
Product code : BPS464

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

#### 1.2.1. Relevant identified uses

Main use category : Professional use, Industrial use  
Industrial/Professional use spec : Industrial  
For professional use only  
Function or use category : Laboratory chemicals

#### 1.2.2. Uses advised against

No additional information available

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

#### Spectracer UK Ltd.

Second Floor,  
27 Gloucester Place,  
London,  
W1U 8HU,  
United Kingdom.

Tel: +44 (0) 207 193 9114

Fax: +44 (0) 203 432 4686

Email: [contact@spectracer.co.uk](mailto:contact@spectracer.co.uk)

Web: [www.spectracer.com](http://www.spectracer.com)

### 1.4. Emergency telephone number

Emergency number : 112 (EU)

Country	Organisation/Company	Address	Emergency number
IRELAND (REPUBLIC OF)	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	: +353 1 8379964
UNITED KINGDOM	National Poisons Information Service (NHS Direct)	<a href="http://www.npis.org">http://www.npis.org</a>	111 (England & Wales only) or 112 (EU) or 08454 24 24 24 (Scotland)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 3 H226

Full text of H-statements: see section 16

#### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

R10

Full text of R-phrases: see section 16

#### Adverse physicochemical, human health and environmental effects

No additional information available

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## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H226 - Flammable liquid and vapour

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P233 - Keep container tightly closed  
P240 - Ground/bond container and receiving equipment  
P241 - Use explosion-proof electrical, lighting, ventilating equipment  
P280 - Wear eye protection, face protection, protective clothing, protective gloves  
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

No labelling applicable

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
ethanol substance with national workplace exposure limit(s) (AT, BE, BG, CZ, DE, DK, ES, FI, FR, GB, GR, HU, IE, IT, LT, LV, NL, PL, PT, RO, SE)	(CAS No) 64-17-5 (EC no) 200-578-6 (EC index no) 603-002-00-5	30 - 50	F; R11
potassium sulfate substance with national workplace exposure limit(s) (BE, FR, GB)	(CAS No) 7778-80-5 (EC no) 231-915-5	0,1 - 1	Not classified
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanol substance with national workplace exposure limit(s) (AT, BE, BG, CZ, DE, DK, ES, FI, FR, GB, GR, HU, IE, IT, LT, LV, NL, PL, PT, RO, SE)	(CAS No) 64-17-5 (EC no) 200-578-6 (EC index no) 603-002-00-5	30 - 50	Flam. Liq. 2, H225
potassium sulfate substance with national workplace exposure limit(s) (BE, FR, GB)	(CAS No) 7778-80-5 (EC no) 231-915-5	0,1 - 1	Not classified

Full text of R- and H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow breathing of fresh air. Allow the victim to rest.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.



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

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.  
Unsuitable extinguishing media : Do not use a heavy water stream.

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

Fire hazard : Highly flammable liquid and vapour.  
Explosion hazard : May form flammable/explosive vapour-air mixture.

### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.  
Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if substance enters sewers or public waters.

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

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.  
Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Use only non-sparking tools.

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

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof Flame proof, lighting, electrical equipment and ventilation equipment.  
Storage conditions : Keep in fireproof place. Keep container tightly closed. Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Heat and ignition sources.  
Incompatible products : Strong bases. Strong acids.  
Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

### 7.3. Specific end use(s)

No additional information available



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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

potassium sulfate (7778-80-5)		
Belgium	Limit value (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> (Particules non classifiées autrement (fraction alvéolaire); Belgium; Time-weighted average exposure limit 8 h; Particules non classifiées autrement (fraction inhalable); 10 mg/m <sup>3</sup> ; Belgium; Time-weighted average exposure limit 8 h)
France	VME (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (Poussières réputées sans effet spécifique; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante; Poussières réputées sans effet spécifique, fraction; 5 mg/m <sup>3</sup> ; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup> Inhalable dust; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005); Respirable dust; 10 mg/m <sup>3</sup> ; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
ethanol (64-17-5)		
Austria	Local name	Ethanol
Austria	MAK (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Austria	MAK (ppm)	1000 ppm
Austria	MAK Short time value (mg/m <sup>3</sup> )	3800 mg/m <sup>3</sup>
Austria	MAK Short time value (ppm)	2000 ppm
Belgium	Local name	Alcool éthylique
Belgium	Limit value (mg/m <sup>3</sup> )	1907 mg/m <sup>3</sup>
Belgium	Limit value (ppm)	1000 ppm
Bulgaria	Local name	Етилов алкохол
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Croatia	Local name	Etanol; (Etil-alkohol)
Croatia	GVI (granična vrijednost izloženosti) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Croatia	GVI (granična vrijednost izloženosti) (ppm)	1000 ppm
Croatia	Naznake (HR)	F
Czech Republic	Local name	Ethanol
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Czech Republic	Expoziční limity (PEL) (ppm)	530 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m <sup>3</sup> )	3000 mg/m <sup>3</sup>
Czech Republic	Expoziční limity (NPK-P) (ppm)	1600 ppm
Denmark	Local name	Ethanol
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (ppm)	1000 ppm
Estonia	Local name	Etanool (etüülalkohol)
Estonia	OEL TWA (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Estonia	OEL TWA (ppm)	500 ppm
Estonia	OEL STEL (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Estonia	OEL STEL (ppm)	1000 ppm
Finland	Local name	Etanoli
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Finland	HTP-arvo (8h) (ppm)	1000 ppm



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ethanol (64-17-5)		
Finland	HTP-arvo (15 min)	2500 mg/m <sup>3</sup>
Finland	HTP-arvo (15 min) (ppm)	1300 ppm
France	Local name	Alcool éthylique
France	VME (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
France	VME (ppm)	1000 ppm
France	VLE (mg/m <sup>3</sup> )	9500 mg/m <sup>3</sup>
France	VLE (ppm)	5000 ppm
Germany	Local name	Ethanol
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	960 mg/m <sup>3</sup>
Germany	TRGS 900 Occupational exposure limit value (ppm)	500 ppm
Germany	Remark (TRGS 900)	DFG,Y
Greece	OEL TWA (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Greece	OEL TWA (ppm)	1000 ppm
Hungary	Local name	ETIL-ALKOHOL
Hungary	AK-érték	1900 mg/m <sup>3</sup>
Hungary	CK-érték	7600 mg/m <sup>3</sup>
Hungary	Megjegyzések (HU)	IV.
Ireland	Local name	Ethanol
Ireland	OEL (15 min ref) (ppm)	1000 ppm
Latvia	Local name	Etilspirts (etanols)
Latvia	OEL TWA (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Lithuania	Local name	Etanolis (etilo alkoholis)
Lithuania	IPRV (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Lithuania	IPRV (ppm)	500 ppm
Lithuania	TPRV (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Lithuania	TPRV (ppm)	1000 ppm
Netherlands	Local name	Ethanol
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	260 mg/m <sup>3</sup>
Netherlands	Grenswaarde TGG 8H (ppm)	136 ppm (Ethanol; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Netherlands	Grenswaarde TGG 15MIN (ppm)	992 ppm (Ethanol; Netherlands; Short time value; Public occupational exposure limit value)
Netherlands	Remark (MAC)	H
Poland	Local name	Etanol (alkohol etylowy)
Poland	NDS (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Portugal	Local name	Etanol (Álcool etílico)
Portugal	OEL TWA (ppm)	1000 ppm
Romania	Local name	Alcool etilic
Romania	OEL TWA (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Romania	OEL TWA (ppm)	1000 ppm
Romania	OEL STEL (mg/m <sup>3</sup> )	9500 mg/m <sup>3</sup>
Romania	OEL STEL (ppm)	5000 ppm
Slovenia	Local name	etanol (etilalkohol)
Slovenia	OEL TWA (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Slovenia	OEL TWA (ppm)	1000 ppm
Slovenia	OEL STEL (mg/m <sup>3</sup> )	7600 mg/m <sup>3</sup>



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ethanol (64-17-5)		
Slovenia	OEL STEL (ppm)	4000 ppm
Spain	Local name	Etanol (2013) ( Alcohol etílico)
Spain	VLA-EC (mg/m <sup>3</sup> )	1,910 mg/m <sup>3</sup> s (Esta sustancia tiene prohibida total o parcialmente su comercialización y uso como fitosanitario y/o como biocida. Para unainformación detallada acerca de las prohibiciones consúltese: Base de datos de productos biocidas: <a href="http://www.msssi.gob.es/ciudadanos/saludAmbLaboral/prodQuimicos/sustPreparatorias/biocidas/docs/InclusionesES16.pdf">http://www.msssi.gob.es/ciudadanos/saludAmbLaboral/prodQuimicos/sustPreparatorias/biocidas/docs/InclusionesES16.pdf</a> Base de datos de productos fitosanitarios: <a href="http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf">http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf</a> )
Spain	VLA-EC (ppm)	1,000 ppm s (Esta sustancia tiene prohibida total o parcialmente su comercialización y uso como fitosanitario y/o como biocida. Para unainformación detallada acerca de las prohibiciones consúltese: Base de datos de productos biocidas: <a href="http://www.msssi.gob.es/ciudadanos/saludAmbLaboral/prodQuimicos/sustPreparatorias/biocidas/docs/InclusionesES16.pdf">http://www.msssi.gob.es/ciudadanos/saludAmbLaboral/prodQuimicos/sustPreparatorias/biocidas/docs/InclusionesES16.pdf</a> Base de datos de productos fitosanitarios: <a href="http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf">http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf</a> )
Sweden	Local name	Ethanol
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (ppm)	500 ppm
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Sweden	kortidsvärde (KTV) (ppm)	1000 ppm
United Kingdom	Local name	Ethanol
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	1920 mg/m <sup>3</sup>
United Kingdom	WEL TWA (ppm)	1000 ppm
Iceland	Local name	Etanól (etylalkóhól)
Iceland	OEL (8 hours ref) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Iceland	OEL (8 hours ref) (ppm)	1000 ppm
Norway	Local name	Etanol
Norway	Grenseverdier (AN) (mg/m <sup>3</sup> )	950 mg/m <sup>3</sup>
Norway	Grenseverdier (AN) (ppm)	500 ppm
Switzerland	Local name	Ethanol
Switzerland	VME (mg/m <sup>3</sup> )	960 mg/m <sup>3</sup>
Switzerland	VME (ppm)	500 ppm
Switzerland	VLE (mg/m <sup>3</sup> )	1920 mg/m <sup>3</sup>
Switzerland	VLE (ppm)	1000 ppm
Switzerland	Remark (CH)	4x15
Australia	Local name	Ethyl alcohol
Australia	TWA (mg/m <sup>3</sup> )	1880 mg/m <sup>3</sup>
Australia	TWA (ppm)	1000 ppm
USA - ACGIH	Local name	Ethanol
USA - ACGIH	ACGIH STEL (ppm)	1000 ppm
USA - ACGIH	Remark (ACGIH)	URT irr
USA - OSHA	Local name	Ethyl alcohol (Ethanol)
USA - OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
USA - OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

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### 8.2. Exposure controls

Appropriate engineering controls	: Provide adequate general and local exhaust ventilation.
Personal protective equipment	: Protective goggles. Gloves.
Hand protection	: Wear protective gloves
Eye protection	: Chemical goggles or safety glasses
Respiratory protection	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended



Other information : Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: Colourless.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 29 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapour
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

### 10.3. Possibility of hazardous reactions

Not established.



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### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

potassium sulfate (7778-80-5)	
LD50 oral rat	6600 mg/kg (Rat)
ethanol (64-17-5)	
LD50 oral rat	10740 mg/kg bodyweight (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	> 16000 mg/kg (Rabbit; Literature study)

Skin corrosion/irritation	: Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

potassium sulfate (7778-80-5)	
EC50 Daphnia 1	890 mg/l (EC50; 48 h)
LC50 fish 2	653 - 796 mg/l (LC50; 96 h; Lepomis macrochirus)
Threshold limit algae 1	2900 mg/l (EC50; 72 h)
ethanol (64-17-5)	
LC50 fish 2	13000 mg/l (LC50; 96 h; Salmo gairdneri; Static system; Fresh water)

### 12.2. Persistence and degradability

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Persistence and degradability	Not established.





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<b>potassium sulfate (7778-80-5)</b>	
Persistence and degradability	Biodegradability: Not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

<b>ethanol (64-17-5)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in soil. No (test)data available on mobility of the substance.
Biochemical oxygen demand (BOD)	0,8 - 0,967 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1,70 g O <sub>2</sub> /g substance
ThOD	2,10 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

<b>Sulphate Standard Solution R1 (10 ppm SO<sub>4</sub>) as Specified in Appendix 1C of the British Pharmacopoeia (BPS 464)</b>	
Bioaccumulative potential	Not established.

<b>potassium sulfate (7778-80-5)</b>	
Bioaccumulative potential	Not bioaccumulative.

<b>ethanol (64-17-5)</b>	
Log Pow	-0,35 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 24 °C)
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

### 12.4. Mobility in soil

<b>ethanol (64-17-5)</b>	
Surface tension	0,0245 N/m (20 °C)

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Additional information : Avoid release to the environment

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to a licensed waste centre in accordance with local/regional/national/international regulations.
Additional information	: Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials	: Avoid release to the environment.
European List of Waste (LoW) code	: 16 05 06* - laboratory chemicals consisting of or containing dangerous substances including mixtures of laboratory chemicals

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

UN-No. (ADR)	: 1170
UN-No. (IMDG)	: 1170
UN-No. (IATA)	: 1170
UN-No. (ADN)	: 1170
UN-No. (RID)	: 1170

# Sulphate Standard Solution R1 (10 ppm SO<sub>4</sub>) as Specified in Appendix 1C of the British Pharmacopoeia (BPS 464)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Proper Shipping Name (IMDG)	: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Proper Shipping Name (IATA)	: Ethanol solution
Proper Shipping Name (ADN)	: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Proper Shipping Name (RID)	: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Transport document description (ADR)	: UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III, (D/E)
Transport document description (IMDG)	: UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR)	: 3
Danger labels (ADR)	: 3



#### IMDG

Transport hazard class(es) (IMDG)	: 3
Danger labels (IMDG)	: 3



#### IATA

Transport hazard class(es) (IATA)	: 3
Hazard labels (IATA)	: 3



#### ADN

Transport hazard class(es) (ADN)	: 3
Danger labels (ADN)	: 3



#### RID

Transport hazard class(es) (RID)	: 3
Danger labels (RID)	: 3

# Sulphate Standard Solution R1 (10 ppm SO<sub>4</sub>) as Specified in Appendix 1C of the British Pharmacopoeia (BPS 464) Safety Data Sheet

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#### 14.4. Packing group

Packing group (ADR)	: III
Packing group (IMDG)	: III
Packing group (IATA)	: III
Packing group (ADN)	: III
Packing group (RID)	: III

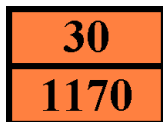
#### 14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

#### 14.6. Special precautions for user

##### 14.6.1. Overland transport

Classification code (ADR)	: F1
Special provisions (ADR)	: 144, 601
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T2
Portable tank and bulk container special provisions (ADR)	: TP1
Tank code (ADR)	: LGBF
Vehicle for tank carriage	: FL
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Operation (ADR)	: S2
Hazard identification number (Kemler No.)	: 30
Orange plates	:



Tunnel restriction code (ADR)	: D/E
EAC code	: •2YE

##### 14.6.2. Transport by sea

Special provisions (IMDG)	: 144, 223
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T2
Tank special provisions (IMDG)	: TP1
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D



# Sulphate Standard Solution R1 (10 ppm SO<sub>4</sub>) as Specified in Appendix 1C of the British Pharmacopoeia (BPS 464)

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Stowage category (IMDG) : A

### 14.6.3. Air transport

PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y344  
PCA limited quantity max net quantity (IATA) : 10L  
PCA packing instructions (IATA) : 355  
PCA max net quantity (IATA) : 60L  
CAO packing instructions (IATA) : 366  
CAO max net quantity (IATA) : 220L  
Special provisions (IATA) : A3, A58, A180  
ERG code (IATA) : 3L

### 14.6.4. Inland waterway transport

Classification code (ADN) : F1  
Special provisions (ADN) : 144, 61  
Limited quantities (ADN) : 5 L  
Excepted quantities (ADN) : E1  
Carriage permitted (ADN) : T  
Equipment required (ADN) : PP, EX, A  
Ventilation (ADN) : VE01  
Number of blue cones/lights (ADN) : 0  
Carriage prohibited (ADN) : No  
Not subject to ADN : No

### 14.6.5. Rail transport

Classification code (RID) : F1  
Special provisions (RID) : 144, 601  
Limited quantities (RID) : 5L  
Excepted quantities (RID) : E1  
Packing instructions (RID) : P001, IBC03, LP01, R001  
Mixed packing provisions (RID) : MP19  
Portable tank and bulk container instructions (RID) : T2  
Portable tank and bulk container special provisions (RID) : TP1  
Tank codes for RID tanks (RID) : LGBF  
Transport category (RID) : 3  
Special provisions for carriage – Packages (RID) : W12  
Colis express (express parcels) (RID) : CE4  
Hazard identification number (RID) : 30  
Carriage prohibited (RID) : No

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	Sulphate Standard Solution R1 (10 ppm SO <sub>4</sub> ) as Specified in Appendix 1C of the British Pharmacopoeia (BPS 464) - ethanol
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# Sulphate Standard Solution R1 (10 ppm SO<sub>4</sub>) as Specified in Appendix 1C of the British Pharmacopoeia (BPS 464)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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3.a. Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	Sulphate Standard Solution R1 (10 ppm SO <sub>4</sub> ) as Specified in Appendix 1C of the British Pharmacopoeia (BPS 464) - ethanol
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	Sulphate Standard Solution R1 (10 ppm SO <sub>4</sub> ) as Specified in Appendix 1C of the British Pharmacopoeia (BPS 464) - ethanol

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

### 15.1.2. National regulations

#### Germany

Water hazard class (WGK)

: 1 - low hazard to waters

WGK remark

: Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Data sources

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information

: None.

Full text of R-, H- and EUH-statements:

Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
R10	Flammable
R11	Highly flammable
F	Highly flammable

SDS EU Mod H F (REACH ANNEX II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*