

COD (LR) 0 - 150 mg/l prepared vials, mercury-free

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 08/10/2025 Revision date: 06/08/2026 Supersedes version of: 08/10/2025 Version: 1.1

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

1.1. Product identifier

Product form : Mixture
Name : COD (LR) 0 - 150 mg/l prepared vials, mercury-free
Trade name : COD (LR) 0 - 150 mg/l prepared vials, mercury-free
EC Index-No. : 016-020-00-8
EC-No. : 231-639-5
CAS-No. : 7664-93-9
Product code : PHTR-DML
Formula : H2O4S

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

Relevant identified uses

Main use category : Laboratory use

1.3. Details of the supplier of the safety data sheet

No additional information available

1.4. Emergency telephone number

Country/Area	Organisation	Emergency number
United Kingdom	National Poisons Information Service (Belfast Centre). Royal Victoria Hospital. Grosvenor Road BT12 6BA Belfast.	0344 892 0111 Only for healthcare professionals

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Corrosive to metals, Category 1 H290
Acute toxicity (oral), Category 4 H302
Acute toxicity (inhal.), Category 4 H332
Skin corrosion/irritation, Category 1, Sub-Category 1A H314
Germ cell mutagenicity, Category 1A H340
Carcinogenicity (inhalation) Category 1A H350i
Reproductive toxicity, Category 1A H360
Hazardous to the aquatic environment – Chronic Hazard, Category 1 H410

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

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Contains

: Sulfuric acid
; Dichromic Acid (Potassium dichromate/sulfuric acid)

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Hazard statements (CLP)	: H290 - May be corrosive to metals. H302+H332 - Harmful if swallowed or if inhaled. H314 - Causes severe skin burns and eye damage. H340 - May cause genetic defects. H350i - May cause cancer by inhalation. H360 - May damage fertility or the unborn child. H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P234 - Keep only in original packaging. P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product.

2.3. Other hazards

PBT: not relevant – no registration required

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Dichromic Acid (Potassium dichromate/sulfuric acid) (13530-68-2)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Dichromic Acid (Potassium dichromate/sulfuric acid) (13530-68-2)
PBT: not relevant – no registration required	Silver sulfate (10294-26-5)

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
Substance(s) not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605	Dichromic Acid (Potassium dichromate/sulfuric acid) (13530-68-2)

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sulfuric acid	CAS-No.: 7664-93-9 EC-No.: 231-639-5 EC Index-No.: 016-020-00-8 REACH-no: 01-2119458838-20	86 – 96	Met. Corr. 1, H290 Skin Corr. 1A, H314
Water	CAS-No.: 7732-18-5 EC-No.: 231-791-2	2 – 10	Not classified

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Dichromic Acid (Potassium dichromate/sulfuric acid) substance listed on REACH Candidate List (Acids generated from chromium trioxide and their oligomers) substance listed on REACH Annex XIV (Dichromic acid)	CAS-No.: 13530-68-2 EC-No.: 236-881-5	1 – 3	Ox. Sol. 2, H272 Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Acute Tox. 1 (Inhalation), H330 Skin Corr. 1B, H314 Muta. 1B, H340 Carc. 1B, H350 Repr. 1B, H360 STOT RE 1, H372 Aquatic Chronic 1, H410
Silver sulfate	CAS-No.: 10294-26-5 EC-No.: 233-653-7	0,5 – 2	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 (M=1000)

Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
Sulfuric acid	CAS-No.: 7664-93-9 EC-No.: 231-639-5 EC Index-No.: 016-020-00-8 REACH-no: 01-2119458838-20	(5 ≤ C < 15) Eye Irrit. 2; H319 (5 ≤ C < 15) Skin Irrit. 2; H315 (15 ≤ C < 100) Skin Corr. 1A; H314

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. Call a physician immediately.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. Get immediate medical advice/attention.
First-aid measures after eye contact	: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
First-aid measures after ingestion	: Drink plenty of water. Rinse mouth. Get immediate medical advice/attention.

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

No additional information available

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	: Making extinguishing agents environment-friendly.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: Not flammable.
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5.3. Advice for firefighters

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|--------------------------------|---|
| Firefighting instructions | : Exercise caution when fighting any chemical fire. |
| 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

For non-emergency personnel

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|----------------------|---|
| Protective equipment | : Wear recommended personal protective equipment. |
|----------------------|---|

For emergency responders

- | | |
|----------------------|---|
| Protective equipment | : Equip cleanup crew with proper protection. |
| Emergency procedures | : Stop release. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. |

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

- | | |
|-------------------------|--|
| For containment | : Collect spillage. |
| Methods for cleaning up | : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. This material and its container must be disposed of in a safe way, and as per local legislation. |

6.4. Reference to other sections

See Section 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- | | |
|-----------------------------------|---|
| Additional hazards when processed | : Keep containers closed. |
| Hygiene measures | : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. |

7.2. Conditions for safe storage, including any incompatibilities

- | | |
|------------------------------------|---|
| Storage conditions | : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store in a well-ventilated place. Keep container tightly closed. |
| Incompatible materials for storage | : Heat sources. Direct sunlight. |
| Storage area | : Store away from heat. |

Switzerland

- | | |
|--------------------|----------------------------|
| Storage class (LK) | : LK 6.1 - Toxic materials |
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7.3. Specific end use(s)

Laboratory chemicals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

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Sulfuric acid (7664-93-9)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Sulphuric acid (mist)
IOEL TWA	0,05 mg/m³
Regulatory reference	COMMISSION DIRECTIVE 2009/161/EU
Estonia - Occupational Exposure Limits	
Local name	Väävelhape, udu
OEL TWA	0,05 mg/m³
Remark	28 (Kokkupuute seiremeetodi valimisel tuleb arvestada võimalikke piiranguid ja häireid, mis võivad tekkida väävliühendite esinemise korral), 29 (Udu määratletakse ülemistes hingamisteedesse jõudvate osakeste fraktsioonina)
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 02.04.2024, 13)
France - Occupational Exposure Limits	
Local name	Acide sulfurique
VLEP 8h (OEL TWA)	0,05 mg/m³ (fraction thoracique)
VLEP CT (OEL STEL)	3 mg/m³ (fraction thoracique)
Remark	VME réglementaire indicative; VLE recommandée/admise
Regulatory reference	Arrêté du 30 juin 2004 modifié et circulaire du Ministère du travail (réf.: INRS ED 6443, 2022; Outil65; Arrêté du 9 mai 2012)
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Schwefelsäure
AGW (OEL TWA)	0,1 mg/m³ E (mg/m3)
Peak exposure limitation factor	1(I)
Remark	DFG,EU,Y
Regulatory reference	TRGS900
Greece - Occupational Exposure Limits	
Local name	Θειικό οξύ (ομίχλη)
OEL TWA	1 mg/m³
Remark	Η ένδειξη «δέρμα» στις οριακές τιμές επαγγελματικής έκθεσης επισημαίνει το ενδεχόμενο σημαντικής διείσδυσης μέσω του δέρματος.
Regulatory reference	Π.Δ. 12/2012 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους
Italy - Occupational Exposure Limits	
Local name	Acido solforico (nebulizzazione)
OEL TWA	0,05 mg/m³
Regulatory reference	Allegato XXXVIII del D.Lgs. 9 aprile 2008, n. 81 e s.m.i. (D.Lgs. 4 settembre 2024, n. 135)
Latvia - Occupational Exposure Limits	
Local name	Sērskābe3 (migla, kas tiek definēta kā torakālā frakcija)
OEL TWA	0,05 mg/m³
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325 (Grozījumi Ministru kabineta 2024. gada 26. martā noteikumiem Nr. 191).

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Sulfuric acid (7664-93-9)	
Lithuania - Occupational Exposure Limits	
Local name	Sieros rūgštis (rūkas)
IPRV (OEL TWA)	0,05 mg/m³
TPRV (OEL STEL)	3 mg/m³
Remark	Renkantis tinkamą poveikio stebėsenos modelį turi būti atsižvelgiama į galimus apribojimus ir trukdžius, galinčius kilti, kai esama kitų sieros junginių. Rūkas (migla) apibrėžiamas kaip įkvepiama dalis.
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Portugal - Occupational Exposure Limits	
Local name	Ácido sulfúrico
OEL TWA	0,2 mg/m³ T (Fração torácica)
Remark	A2 (Agente carcinogénico confirmado nos animais de laboratório com relevância desconhecida no Homem (Esta classificação refere-se a ácido sulfúrico presente em misturas ácidas inorgânicas fortes))
Regulatory reference	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
Local name	Acid sulfuric
OEL TWA	0,05 mg/m³
Remark	Pentru acid sulfuric: atunci când se alege o metodă adecvată de monitorizare a expunerii, trebuie să se țină cont de limitările și interferențele potențiale care pot apărea în prezența altor compuși ai sulfului. Particule lichide pulverizate (Pentru acid sulfuric: particulele lichide pulverizate se definesc ca fracțiune toracică).
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 179/2024)
Spain - Occupational Exposure Limits	
Local name	Ácido sulfúrico
VLA-ED (OEL TWA)	0,05 mg/m³ niebla
Remark	az (Al seleccionar un método adecuado de control de la exposición, deben tomarse en consideración posibles limitaciones e interferencias que pueden surgir en presencia de otros compuestos de azufre), VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo. Todos estos agentes químicos figuran al menos en una de las directivas de valores límite indicativos publicadas hasta ahora (ver Anexo C. Bibliografía). Los estados miembros disponen de un tiempo fijado en dichas directivas para su transposición a los valores límites de cada país miembro. Una vez adoptados, estos valores tienen la misma validez que el resto de los valores adoptados por el país), s (Esta sustancia tiene prohibida total o parcialmente su comercialización y uso como fitosanitario y/o como biocida. Para una información detallada acerca de las prohibiciones consúltase: Base de datos de productos biocidas: http://www.msssi.gob.es/ciudadanos/productos.do?tipo=plaguicidas Base de datos de productos fitosanitarios http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf), d (Véase UNE EN 481: Atmósferas en los puestos de trabajo. Definición de las fracciones por el tamaño de las partículas para la medición de aerosoles).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2026. INSHT
Sweden - Occupational Exposure Limits	
Local name	Svavelsyra
NGV (OEL TWA)	0,1 mg/m³ (inhalerbar fraktion)

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Sulfuric acid (7664-93-9)	
KGV (OEL STEL)	0,2 mg/m ³ (inhalerbar fraktion)
Remark	C (Ämnet är cancerframkallande); V (Vägledande korttidsgränsvärde som ska användas som ett rekommenderat högsta värde som inte bör överskridas); 22 (Anmärkningen att svavelsyra är cancerframkallande gäller bara aerosoler av svavelsyra); 23 (Ämnet har ett indikativt EU-gränsvärde); 25 (Med inhalerbar och respirabel fraktion menas de dammfractioner som definieras i svensk standard SS-EN 481, Arbetsplatsluft – Partikelstorleksfraktioner för mätning av luftburna partiklar (utgåva 1, 1993). Med totaldamm menas de partiklar (aerosoler) som fastnar på ett filter i en totaldammprovtagare)
Regulatory reference	Arbetsmiljöverkets föreskrifter och allmänna råd (AFS 2023:14) om gränsvärden för luftvägsexponering i arbetsmiljön
United Kingdom - Occupational Exposure Limits	
Local name	Sulphuric acid
WEL TWA (OEL TWA)	0,05 mg/m ³ mist
WEL STEL (OEL STEL)*	0,15 mg/m ³
Remark	The mist is defined as the thoracic fraction
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Norway - Occupational Exposure Limits	
Local name	Svovelsyreaerosol
Grenseverdi (OEL TWA)	0,1 mg/m ³ Torakal fraksjon
Remark	K: Kjemikalier som skal betraktes som kreftfremkallende; E: EU har en veiledende grenseverdi og/eller anmerkning for stoffet.
Regulatory reference	FOR-2025-12-18-2660

*STEL value is calculated based on the TWA limit

DNEL and PNEC

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DNEL/DMEL (Workers)	
Acute - local effects, inhalation	0,1 mg/m ³
Long-term - local effects, inhalation	0,05 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,0025 mg/l
PNEC aqua (marine water)	0,00025 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,002 mg/kg dwt
PNEC sediment (marine water)	0,002 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	8,8 mg/l

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Do not breathe gas/vapour.

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Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure. ISO 374-1.

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:

Safety glasses

Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

protective gloves

Respiratory protection

Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

Respiratory protection			
Device	Filter type	Condition	Standard
Escape hood	Filter A3/B3		EN 12942

Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use. Wash hands with water as a precaution.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: light orange.
Appearance	: Cloudy.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not flammable
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: > 100 °C
pH	: < 0,5
Viscosity, kinematic	: Not available
Solubility	: Miscible.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 0,485 hPa Temp.: 20 °C
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available

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Relative vapour density at 20°C : Not available
Particle characteristics : Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Caustic products.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

May be corrosive to metals.

10.6. Hazardous decomposition products

Corrosive vapours.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Harmful if inhaled.

COD (LR) 0 - 150 mg/l prepared vials, mercury-free (7664-93-9)	
LD50 oral rat	2140 mg/kg bodyweight Animal: rat, 95% CL: 1540 - 2990
LD50 oral	female
LC50 Inhalation - Rat	0,375 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
ATE CLP (vapours)	11 mg/l/4h
ATE CLP (dust,mist)	1,5 mg/l/4h
Sulfuric acid (7664-93-9)	
LD50 oral rat	2140 mg/kg
Silver sulfate (10294-26-5)	
LD50 oral rat	5000 mg/kg
Skin corrosion/irritation	: Causes severe skin burns. pH: < 0,5
Sulfuric acid (7664-93-9)	
pH	< 1

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Silver sulfate (10294-26-5)	
pH	5 – 6 (5 g/l H ₂ O sol.)
Water (7732-18-5)	
pH	5 – 6,5
Serious eye damage/irritation	: Assumed to cause serious eye damage pH: < 0,5
Sulfuric acid (7664-93-9)	
pH	< 1
Silver sulfate (10294-26-5)	
pH	5 – 6 (5 g/l H ₂ O sol.)
Water (7732-18-5)	
pH	5 – 6,5
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: May cause genetic defects.
Carcinogenicity	: May cause cancer by inhalation.
Reproductive toxicity	: May damage fertility or the unborn child.
STOT-single exposure	: Not classified
Silver sulfate (10294-26-5)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Dichromic Acid (Potassium dichromate/sulfuric acid) (13530-68-2)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Water (7732-18-5)	
Viscosity, kinematic	0,952 mm ² /s

11.2. Information on other hazards

Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

COD (LR) 0 - 150 mg/l prepared vials, mercury-free (7664-93-9)	
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
NOEC (chronic)	0,15 mg/l Test organisms (species): other:Tanytarsus dissimilis
NOEC chronic fish	0,31 mg/l Test organisms (species): Salvelinus fontinalis

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Silver sulfate (10294-26-5)

LC50 - Fish [1]	1,2 µg/l Test organisms (species): Pimephales promelas
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12.2. Persistence and degradability

COD (LR) 0 - 150 mg/l prepared vials, mercury-free (7664-93-9)

Persistence and degradability	Rapidly degradable
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Sulfuric acid (7664-93-9)

Persistence and degradability	Rapidly degradable
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Dichromic Acid (Potassium dichromate/sulfuric acid) (13530-68-2)

Persistence and degradability	Rapidly degradable
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Silver sulfate (10294-26-5)

Persistence and degradability	Rapidly degradable
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Water (7732-18-5)

Persistence and degradability	Rapidly degradable
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

COD (LR) 0 - 150 mg/l prepared vials, mercury-free (7664-93-9)

PBT: not relevant – no registration required

Component

Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Dichromic Acid (Potassium dichromate/sulfuric acid) (13530-68-2)
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Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Dichromic Acid (Potassium dichromate/sulfuric acid) (13530-68-2)
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PBT: not relevant – no registration required	Silver sulfate (10294-26-5)
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12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : Not applicable.

12.7. Other adverse effects

Other adverse effects : Do not discharge into drains or rivers.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: wastes containing mercury. Must follow special treatment according to local regulation.

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SECTION 14: Transport information

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

14.1. UN number or ID number

UN-No. (ADR)	: UN 1830
UN-No. (IMDG)	: UN 1830
UN-No. (IATA)	: UN 1830
UN-No. (ADN)	: UN 1830
UN-No. (RID)	: UN 1830

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: SULPHURIC ACID
Proper Shipping Name (IMDG)	: SULPHURIC ACID
Proper Shipping Name (IATA)	: Sulphuric acid
Proper Shipping Name (ADN)	: SULPHURIC ACID
Proper Shipping Name (RID)	: SULPHURIC ACID
Transport document description (ADR) (ADR)	: UN 1830 SULPHURIC ACID, 8, II, (E), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG)	: UN 1830 SULPHURIC ACID, 8, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)	: UN 1830 Sulphuric acid, 8, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN)	: UN 1830 SULPHURIC ACID, 8, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID)	: UN 1830 SULPHURIC ACID, 8, II, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 8
Danger labels (ADR)	: 8



IMDG

Transport hazard class(es) (IMDG)	: 8
Danger labels (IMDG)	: 8



IATA

Transport hazard class(es) (IATA)	: 8
Danger labels (IATA)	: 8



ADN

Transport hazard class(es) (ADN)	: 8
Danger labels (ADN)	: 8



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RID

Transport hazard class(es) (RID) : 8
Danger labels (RID) : 8



14.4. Packing group

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

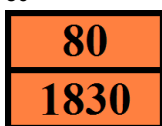
14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : C1
Limited quantities (ADR) : 1I
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001, IBC02
Mixed packing provisions (ADR) : MP15
Portable tank and bulk container instructions (ADR) : T8
Portable tank and bulk container special provisions (ADR) : TP2
Tank code (ADR) : L4BN
Tank special provisions (ADR) : TU42
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 80
Orange plates :



Tunnel restriction code (ADR) : E
EAC code : 2P

Transport by sea

Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
IBC special provisions (IMDG) : B20
Tank instructions (IMDG) : T8
Tank special provisions (IMDG) : TP2
Stowage category (IMDG) : C
Stowage and handling (IMDG) : SW15
Segregation (IMDG) : SGG1, SG36, SG49
Properties and observations (IMDG) : Colourless, oily liquid, mixture over 1.41 up to 1.84 relative density. In the presence of moisture, highly corrosive to most metals. Causes burns to skin, eyes and mucous membranes.

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Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y840
PCA limited quantity max net quantity (IATA)	: 0.5L
PCA packing instructions (IATA)	: 851
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 855
CAO max net quantity (IATA)	: 30L
ERG code (IATA)	: 8L

Inland waterway transport

Classification code (ADN)	: C1
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0

Rail transport

Classification code (RID)	: C1
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Mixed packing provisions (RID)	: MP15
Portable tank and bulk container instructions (RID)	: T8
Portable tank and bulk container special provisions (RID)	: TP2
Tank codes for RID tanks (RID)	: L4BN
Special provisions for RID tanks (RID)	: TU42
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE6
Hazard identification number (RID)	: 80

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-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3.	Sulfuric acid
3(b)	Sulfuric acid

REACH Annex XIV (Authorisation List)

Contains substance(s) listed on REACH Annex XIV: Acids generated from chromium trioxide and their oligomers (EC 236-881-5, CAS 13530-68-2)

REACH Candidate List (SVHC)

Contains substance(s) listed on the REACH Candidate List in concentrations $\geq 0.1\%$ or SCL: Acids generated from chromium trioxide and their oligomers (EC 236-881-5, CAS 13530-68-2)

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

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POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

Explosives Precursors Regulation (EU 2019/1148)

Listed on the Explosives Precursors list (EU)

Contains substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

ANNEX I RESTRICTED EXPLOSIVES PRECURSORS

List of substances which are not to be made available to, or introduced, possessed or used by, members of the general public, whether on their own or in mixtures or substances that include those substances, unless the concentration is equal to or lower than the limit values set out in column 2, and for which suspicious transactions and significant disappearances and thefts are to be reported within 24 hours.

Name	CAS-No.	Limit value	Upper limit value for licensing under Article 5(3)	Combined Nomenclature (CN) code for a separate chemically defined compound meeting the requirements of Note 1 to Chapter 28 or 29 of the CN, respectively	Combined Nomenclature code for mixture without constituents which would determine classification under another CN code
Sulphuric acid	7664-93-9	15	40 % w/w	ex 2807 00 00	ex 3824 99 96
Sulphuric acid	7664-93-9	15	40 % w/w	ex 2807 00 00	ex 3824 99 96

Drug Precursors Regulation (EC 273/2004)

Listed on the Drug Precursors list (EU)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Name	CN designation	CAS-No.	CN code	Category, Subcategory	Threshold	Annex
Sulphuric acid		7664-93-9	2807 00 00	Category 3		Annex I
Sulphuric acid		7664-93-9	2807 00 00	Category 3		Annex I

National regulations

Denmark

Danish National Regulations

: Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with it.
If an employee is pregnant or breastfeeding and the person in question uses or is exposed to this product at work, the employer must always carry out a risk assessment of the work. The assessment must both deal with the dangerousness of the impact and its strength and duration. The employer's decision that a pregnant or lactating woman can perform a specific work task must therefore be made in the context of her specific working conditions. See also WEA-Guideline A.1.8-7 on the working environment of pregnant and breastfeeding workers. The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

Germany

Water hazard class (WGK)

: WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1).

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Chemicals Prohibition Ordinance (ChemVerbotsV) : This product is subject to ChemVerbotsV Annex 2 Entry 1. The following requirements must be observed: authorization requirement (according to § 6 paragraph 1 sentence 1), basic requirements for carrying out the delivery (according to § 8 paragraph 1, 3 and 4), identification and documentation (according to § 9 paragraph 1 to 3) and exclusion of the shipping route (according to § 10).

Netherlands

SZW List of Carcinogenic Substances : Sulfuric acid is listed
SZW List of Mutagenic Substances : None of the components are listed
SZW List of Reprotoxic Substances – Breastfeeding : None of the components are listed
SZW List of Reprotoxic Substances – Fertility : None of the components are listed
SZW List of Reprotoxic Substances – Development : None of the components are listed

Poland

Polish National Regulations : Act of 25 February 2011 on chemical substances and their mixtures (J. o L. No. 63, item 322 as amended; consolidated text J. o L. 2019, item 1225).
Act of 14 December 2012 on waste (J. o L. 2013, item 322 as amended; consolidated text J. o L. 2020, item 797).
The announcement of Marshal of the Sejm of the Republic of Poland dated 19 October 2016 concerning the consolidated text announcement of the decree on the management of packaging and packaging waste (J. o L. 2016, item 1863 as amended).
Decree of the Minister of Environment of 14 December 2014 on the catalogue of waste (J. o L. 2014, item 1923).
Act of 19 August 2011 on the Carriage of Dangerous Goods (J. o L. 2011 No. 227, item 1367 as amended; consolidated text J. o L. 2020, item 154).
Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the highest permissible concentration and intensity of noxious agents for health at work environment (J. o L. item 1286 as amended).
The announcement of Minister of Health dated 9 September 2016 concerning the consolidated text announcement of the decree of the Minister of Health of 30 December 2004 on health and safety at work related to exposure to chemical agents at work (J. o L. of 16 September 2016, item 1488).
Regulation of the Minister of Health of 2 February 2011 on tests and measurements of the noxious agents for health at work environment (J. o L. No. 33, item 166 as amended).
Regulation of the Minister of Environment of 9 December 2003 on particularly hazardous substances to the environment (J. o L. No. 217, item 2141).
ADR Agreement: Government Statement of 13 March 2023 on the entry into force of amendments to Annexes A and B to the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), signed in Geneva on 30 September 1957 (J. o. L. 2023, item 891)
Regulation of the Minister of Health of 25 August 2015 on the method of marking places, pipelines, and containers and tanks used for storing or containing hazardous substances or hazardous mixtures (J.o.L. 2015, item 1368 as amended)

Spain

Royal Decree 665/1997 : Is subject to the Royal Decree 665/1997

Switzerland

Chemicals Ordinance (ChemO, SR 813.11) : Group 1

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 1 (Inhalation)	Acute toxicity (inhal.), Category 1
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4

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Full text of H- and EUH-statements:	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Carc. 1B	Carcinogenicity, Category 1B
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Muta. 1B	Germ cell mutagenicity, Category 1B
Ox. Sol. 2	Oxidising Solids, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H350	May cause cancer.
H350i	May cause cancer by inhalation.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Safety Data Sheet (SDS), EU

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.