SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

Issue Date 01-20-2005 **Revision Date** 23-Mar-2026 **Print Date** 23-Mar-2026 **Version** 5.5

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code(s) LCK714

Product Name LCK714 CSB/COD/DCO, Sample cuvette

Unique Formula Identifier (UFI) QR0A-1FV5-X80X-MANR

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

Recommended Use Water Analysis. Determination of Chemical Oxygen Demand.

Uses advised against

1.3. Details of the supplier of the safety data sheet

Supplier
HACH LANGE GmbH
Willstätterstr. 11
D-40549 Düsseldorf
Tel: +49 (0)211 5288-383
sds@hach.com

Responsible country contact:

HACH UK
Laser House
Ground Floor, Suite B
Waterfront Quay, Salford Quays
GB - Manchester, M50 3XW
Tel. +44 (0) 161 872 1487
info-uk@hach.com

HACH Ireland
Unit 34 GB Business Park
Little Island
IRL-Co. Cork
T45 H681
Tel. +353 (0)146 02 522
info-ie@hach.com

1.4. Emergency telephone number

UK: Chemtrec: +44 20 3807 3798
IE: National Poisons Information Centre (NPIC) 01 809 2566 (24/7)

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 - Dermal	Category 3 - (H311)
Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
Skin corrosion/irritation	Category 1 Sub-category A - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)
Germ cell mutagenicity	Category 1B - (H340)
Carcinogenicity	Category 1B - (H350)
Reproductive toxicity	Category 1B - (H360)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

2.2. Label elements

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

Contains Mercury sulphate, Potassium dichromate, Sulfuric acid, disilver(1+) salt, Sulfuric acid 90%



Signal word
Danger

Hazard statements
H290 - May be corrosive to metals
H302 - Harmful if swallowed
H311 - Toxic in contact with skin
H314 - Causes severe skin burns and eye damage
H332 - Harmful if inhaled
H340 - May cause genetic defects
H350 - May cause cancer
H360FD - May damage fertility. May damage the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure
H410 - Very toxic to aquatic life with long lasting effects

EUH208 - Contains Potassium dichromate May produce an allergic reaction.

Precautionary statements
P201 - Obtain special instructions before use
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing and eye/face protection
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P391 - Collect spillage

Special labelling of certain mixtures

Restricted to professional users

2.3. Other hazards
No information available.

PBT & vPvB
This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT)
This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

Endocrine Disruptor Information
This product does not contain any known or suspected endocrine disruptors.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	CAS No. EC No. Index No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Sulfuric acid	7664-93-9 231-639-5 016-020-00-8	80 - 90%	Met. Corr. 1 - H290 Skin Corr. 1A - H314	Eye Irrit. 2 :H319: 5%<=C<15% Skin Corr. 1A :H314: C>=15% Skin Irrit. 2 :H315: 5%<=C<15%	-	-
Mercury sulphate	7783-35-9 231-992-5 080-002-00-6	1 - 5%	Acute Tox. 2 - H300 Acute Tox. 1 - H310 Acute Tox. 2 - H330 STOT RE 2 - H373 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	STOT RE 2 :H373: C>=0.1%	-	-
Sulfuric acid, disilver(1+) salt	10294-26-5 233-653-7 -	<1%	Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		100	100
Potassium dichromate	7778-50-9 231-906-6 024-002-00-6	<1%	Ox. Sol. 2 - H272 Acute Tox. 3 - H301 Acute Tox. 4 - H312 Skin Corr. 1B -	STOT SE 3 :H335: C>=5%	10	10

Chemical name	CAS No. EC No. Index No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
			H314 Skin Sens. 1 - H317 Acute Tox. 2 - H330 Resp. Sens. 1 - H334 Muta. 1B - H340 Carc. 1B - H350 Repr. 1B - H360FD STOT RE 1 - H372 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410			

Chemical name	REACH registration number
Sulfuric acid	01-2119458838-20-xxxx
Potassium dichromate	01-2119454792-32

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

Acute Toxicity Estimate

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Sulfuric acid, disilver(1+) salt 10294-26-5	> 5000 mg/kg	None reported	None reported	None reported	None reported
Potassium dichromate 7778-50-9	90.5 mg/kg	1170 mg/kg	0.094 mg/L	None reported	None reported

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Chemical name	CAS No.	SVHC candidates
Potassium dichromate	7778-50-9	X

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

Inhalation Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way

valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. IF exposed or concerned: Get medical advice/attention.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical attention.

Skin contact Get immediate medical attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical attention.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

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

Symptoms Burning sensation.

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

Note to doctors Treat symptomatically.

Section 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapours. Do not flush into surface water or sanitary sewer system.

Hazardous combustion products Sulphur oxides. May vaporize to form Mercury vapor.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment.

Additional information Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Attention! Corrosive material. Keep people away from and upwind of spill/leak.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Avoid breathing dust/fume/gas/mist/vapours/spray. Take off contaminated clothing and wash it before reuse. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Take off all contaminated clothing and wash it before reuse. Barrier creams may help to protect the exposed areas of skin.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Protect from light. Keep out of the reach of children. Store away from other materials. Store locked up. Accessible only for authorized persons.

7.3. Specific end use(s)

Specific use(s) Analytical reagent.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits

Chemical name	European Union	United Kingdom	Ireland

Sulfuric acid 7664-93-9	TWA: 0.05 mg/m³; mist (thoracic fraction)	TWA: 0.05 mg/m³ STEL: 0.15 mg/m³	TWA: 0.05 ppm STEL: 0.15 ppm
Mercury sulphate 7783-35-9	TWA: 0.02 mg/m³;	TWA: 0.02 mg/m³ STEL: 0.06 mg/m³	TWA: 0.02 mg/m³ STEL: 0.06 mg/m³
Sulfuric acid, disilver(1+) salt 10294-26-5	TWA: 0.01 mg/m³;	TWA: 0.01 mg/m³ STEL: 0.03 mg/m³	TWA: 0.01 mg/m³ STEL: 0.03 mg/m³
Potassium dichromate 7778-50-9	TWA: 0.005 mg/m³; TWA: 0.010 mg/m³; TWA: 0.025 mg/m³;	TWA: 0.01 mg/m³ TWA: 0.025 mg/m³ STEL: 0.03 mg/m³ STEL: 0.065 mg/m³ Sen+	TWA: 0.005 mg/m³ TWA: 0.01 mg/m³ TWA: 0.025 mg/m³ STEL: 0.15 mg/m³ STEL: 0.03 mg/m³ STEL: 0.075 mg/m³

Chemical name	European Union	United Kingdom	Ireland
Potassium dichromate 7778-50-9	-	-	25 µg/L (urine - total Chromium end of shift at end of workweek) 10 µg/L (urine - total Chromium increase during shift)

Derived No Effect Level (DNEL) - Workers No information available

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374-1:2016 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374-1:2016. Barrier creams may help to protect the exposed areas of skin. Appropriate hand protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Long term (repeated)	Wear protective Viton™ gloves	0,70 mm	>480 minutes
Short term	Wear protective nitrile rubber gloves	0,20 mm	>30 minutes

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection Ensure adequate ventilation. No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Recommended filter type: ABEK-P3.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this

product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Take off all contaminated clothing and wash it before reuse. Barrier creams may help to protect the exposed areas of skin.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state Liquid
Colour orange clear
Odour Odourless.

Property	Values	Remarks • Method
Melting point / freezing point	No data available	
Initial boiling point and boiling range	300 °C	
Flammability	No data available	
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
pH	1	@ 20 °C
Kinematic viscosity	No data available	
Dynamic viscosity	No data available	
Partition coefficient	No data available	
Vapour pressure		
Relative density	1.81 g/mL	@ 20 °C
Relative vapor density	No data available	
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

Solubility(ies)

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Completely soluble	> 10000 mg/L	25 °C / 77 °F

Solubility in other solvents

Chemical Name	Solubility classification	Solubility	Solubility Temperature
None reported	No information available	No data available	No information available

9.2. Other information

9.2.1. Information with regards to physical hazard classes

Corrosive to metals
Steel Corrosion Rate ~ 2370 mm/yr / ~ 93.31 in/yr
Aluminum Corrosion Rate No data available

9.2.2. Other safety characteristics No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity Reacts violently with water. Corrosive to metal.

10.2. Chemical stability

Stability Stable under normal conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Exposure to air or moisture over prolonged periods. To avoid thermal decomposition, do not overheat. Temperatures above 300 °C / 572 °F.

10.5. Incompatible materials

Incompatible materials Organic material. Bases. Metals. Ammonia. Reducing agent. Nitric acid. Alkaline earth metals.

10.6. Hazardous decomposition products

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating and toxic gases and vapours.

Section 11: TOXICOLOGICAL INFORMATION

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

Acute toxicity
Harmful if swallowed
Toxic in contact with skin
Harmful if inhaled

Mixture No data available.

Substance Test data reported below.

Oral Exposure Route:

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Mercury sulphate	None reported	Estimated	None reported	None reported	No information available
Sulfuric acid, disilver(1+) salt	Rat LD_{50}	> 5000 mg/kg	None reported	None reported	No information available
Potassium dichromate	Rat LD_{50}	90.5 mg/kg	None reported	None reported	OECD 401

Dermal Exposure Route:

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium dichromate	Rat	1170 mg/kg	None reported	None reported	ERMA

	LD_{50}				

Inhalation (Dust/Mist) Exposure Route:

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Mercury sulphate	None reported	Estimated	None reported	None reported	No information available
Potassium dichromate	Rat LC_{50}	0.094 mg/L	4 hours	None reported	ERMA

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Mercury sulphate	None reported	Estimated from theoretical calculation	None reported	None reported	No information available

Acute Toxicity Estimate (ATE) Not applicable

ATEmix (oral)	305.50 mg/kg
ATEmix (dermal)	318.70 mg/kg
ATEmix (inhalation-dust/mist)	2.85 mg/L
ATEmix (inhalation-vapour)	31.93 mg/L

Unknown acute toxicity
0 % of the mixture consists of ingredient(s) of unknown toxicity.

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

Skin corrosion/irritation
Causes severe burns.

Mixture No data available.

Substance Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sulfuric acid	Existing human experience	Human	None reported	None reported	Corrosive to skin	HSDB
Mercury sulphate	Existing human experience	Human	None reported	None reported	Skin irritant	GESTIS
Sulfuric acid, disilver(1+) salt	Draize Test	Rabbit	500 mg	4 hours	Not corrosive or irritating to skin	ECHA

Serious eye damage/eye irritation
Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

Mixture No data available.

Substance Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and

						sources for data
Sulfuric acid	Existing human experience	Human	None reported	None reported	Corrosive to eyes	HSDB
Mercury sulphate	Existing human experience	Human	None reported	None reported	Eye irritant	GESTIS
Sulfuric acid, disilver(1+) salt	Draize Test	Rabbit	180 mg	None reported	Corrosive to eyes	ECHA

Respiratory or skin sensitisation
Based on available data, the classification criteria are not met.

Mixture No data available.

Substance Test data reported below.

Skin Sensitization Exposure Route:

Chemical name	Test method	Species	Results	Key literature references and sources for data
Sulfuric acid, disilver(1+) salt	*in vivo* Assay	Guinea pig	No sensitisation responses were observed.	ECHA

STOT - single exposure
Based on available data, the classification criteria are not met.

Mixture No data available.

Substance Test data reported below.

Inhalation (Vapor) Exposure Route:

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid	Human TD_{Lo}	0.144 mg/L	5 minutes	**Lungs, Thorax, or Respiration** Dyspnea	RTECS

STOT - repeated exposure
May cause damage to organs.

Mixture No data available.

Substance Test data reported below.

Oral Exposure Route:

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid, disilver(1+) salt	Rat LD	> 2000 mg/kg	14 days	No toxicological effects observed	ECHA

Inhalation (Vapor) Exposure Route:

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid	Human TC_{Lo}	0.003 mg/L	168 days	**Musculoskeletal** Changes in teeth and supporting structures	RTECS

Germ cell mutagenicity

Classification based on data available for ingredients. Contains a known or suspected mutagen.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic

Chemical name	European Union
Potassium dichromate	Muta. 1B

***Mixture invitro* Data** No data available.

***Substance invitro* Data** Test data reported below.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Sulfuric acid	Cytogenetic analysis	Hamster ovary	4 mmol/L	None reported	Positive test result for mutagenicity	No information available
Sulfuric acid, disilver(1+) salt	Mutation in mammalian somatic cells	Human lymphocyte	.08 mg/L	3 hours	Negative	ECHA
Potassium dichromate	Micronucleus test	Human lymphocyte	0.3 mg/L	None reported	Positive test result for mutagenicity	RTECS

***Mixture invivo* Data** No data available.

***Substance invivo* Data** No data available.

Carcinogenicity

Classification based on data available for ingredients.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
Potassium dichromate	Carc. 1B

Mixture No data available.

Substance No data available.

Reproductive toxicity

Classification based on data available for ingredients.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	European Union
Potassium dichromate	Repr. 1B

Mixture No data available.

Substance Test data reported below.

Oral Exposure Route:

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium dichromate	Mouse TD_{Lo}	1710 mg/kg	19 days	**Effects on Embryo or Fetus** Fetotoxicity (except death e.g. stunted fetus) **Effects on Fertility** Post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants) **Specific Developmental**	RTECS

				Abnormalities Craniofacial (including nose and tongue)	

Inhalation (Vapor) Exposure Route:

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid	Rabbit TC_{Lo}	0.02 mg/L	7 hours	**Specific Developmental Abnormalities** Musculoskeletal system	No information available

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

11.2. Information on other hazards

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

11.2.1. Endocrine disrupting properties
This product does not contain any known or suspected endocrine disruptors.

11.2.2. Other information
Other adverse effects No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Mixture

Acute aquatic toxicity: No data available.

Aquatic Chronic Toxicity: No data available.

Substance

Acute aquatic toxicity: Test data reported below.

Fish:

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sulfuric acid, disilver(1+) salt	96 hours	*Pimephales promelas*	LC_{50}	0.0012 mg/L	ECHA
Potassium dichromate	96 hours	*Oncorhynchus mykiss*	LC_{50}	12.3 mg/L	ERMA

Crustacea:

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sulfuric acid, disilver(1+) salt	48 Hours	*Daphina magna*	LC_{50}	0.00022 mg/L	ECHA
Potassium dichromate	48 Hours	*Daphnia magna*	EC_{50}	0.035 mg/L	ERMA

Aquatic Chronic Toxicity: No data available.

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sulfuric acid, disilver(1+) salt	7 days	*Ceriodaphnia dubia*	EC_{10}	0.00248 mg/L	EPA

12.2. Persistence and degradability

Mixture No data available.

12.3. Bioaccumulative potential

Mixture: No data available.

Partition coefficient No data available

12.4. Mobility in soil

Soil Organic Carbon-Water Partition Coefficient No data available

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

Chemical name	PBT and vPvB assessment
Sulfuric acid	Not PBT/vPvB
Sulfuric acid, disilver(1+) salt	PBT assessment does not apply
Potassium dichromate	PBT assessment does not apply

12.6. Endocrine disrupting properties

Endocrine Disruptor Information: This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects

No information available.

Ozone: Not applicable

Ozone depletion potential (ODP): No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Advice on Disposal

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Our local agencies will accept used cuvettes to ensure their proper disposal.

Waste disposal number (residues/unused products)

160506* WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste.

Waste disposal number (used product)

160506*	WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste.
Contaminated packaging	Dispose of contents/containers in accordance with local regulations.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORT INFORMATION

ADR

14.1 UN number or ID number	3316
14.2 UN proper shipping name	CHEMICAL KIT
14.3 Transport hazard class(es)	9
14.4 Packing Group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	251, 340, 671
Classification code	M11
Tunnel restriction code	(E)

IATA

14.1 UN number or ID number	UN3316
14.2 UN proper shipping name	Chemical kit
14.3 Transport hazard class(es)	9
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	UN3316
14.2 UN proper shipping name	CHEMICAL KIT
14.3 Transport hazard class(es)	9
14.4 Packing Group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	251, 340
EmS-No	F-A, S-P
14.7 Maritime transport in bulk according to IMO instruments	No information available

Additional information

Section 15: REGULATORY INFORMATION

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

National regulations

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

Authorisations and/or restrictions on use:
This product contains one or more substance(s) subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Sulfuric acid - 7664-93-9	75	
Mercury sulphate - 7783-35-9	18 75	
Potassium dichromate - 7778-50-9	72 28 29 30 75 47	19

Persistent Organic Pollutants Not applicable

Export Notification requirements This product contains substances which are regulated pursuant to Regulation (EC) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals

Chemical name	European Export/Import Restrictions per (EC) 649/2012 - Annex Number
Mercury sulphate - 7783-35-9	I.1 I.3 V

Dangerous substance category per Seveso Directive (2012/18/EU) E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

Germany
Water hazard class (WGK) strongly hazardous to water (WGK 3)

France
Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Sulfuric acid 7664-93-9	RG 5,RG 20bis,RG 102 RG 14,RG 20bis,RG 65	-
Mercury sulphate 7783-35-9	RG 2	-
Potassium dichromate 7778-50-9	RG 10,RG 10bis,RG 10ter RG 10	-

Chemical name	Explosives	REPORTABLE EXPLOSIVES PRECURSORS (2019/1148)

Chemical name	Explosives	REPORTABLE EXPLOSIVES PRECURSORS (2019/1148)
Sulfuric acid 7664-93-9	15 %w/w	

10. Rozporządzenie Komisji (UE) 2020/878 z dnia 18 czerwca 2020 r. zmieniające załącznik II dorozporządzenia (WE) nr1907/2006 Parlamentu Europejskiego i Rady w sprawie rejestracji, oceny, udzielaniazezwoleń i stosowanych ograniczeń wzakresie chemikaliów (REACH).

International Inventories

EINECS/ELINCS	Complies
TSCA	Complies
DSL/NDSL	Complies
ENCS	Complies
IECSC	Complies
KECI	Complies
PICCS	Complies
AICS	Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

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

Section 16: OTHER INFORMATION

Issue Date 01-20-2005

Revision Date 23-Mar-2026

Revision Note updated SDS sections:
2

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

**	Hazard Designation
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieure
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service Number
Ceiling	Maximum limit value
CLP	Classification, Labelling and Packaging of substances and mixtures [Regulation (EC) No. 1272/2008]
DNEL	Derived No Effect Level (DNEL)
EC	European Community

ECHA	ECHA (The European Chemicals Agency)
EC50	Effective Concentration to 50% of a test population
EEC	European Economic Community
EN	European Standard
IMDG	International Maritime Dangerous Goods (IMDG)
IATA	International Air Transport Association (IATA)
IATA-DGR	International Air Transport Association - Dangerous Goods Regulations
ICAO	International Civil Aviation Organisation
ICAO-TI	International Civil Aviation Organization - Technical Instructions
IUCLID	IUCLID (The International Uniform Chemical Information Database)
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
LOAEL	Lowest observed adverse effect level
LOAEC	Lowest observed adverse effect concentration
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOLI	LOLI (List of Lists - An International Chemical Regulatory Database)
MAK	Maximale Arbeitsplatz-Konzentration, a German expression corresponding to threshold limit value, which relates to safe daily exposure levels to chemical substances
NOAEL	No Observed Adverse Effect Level
NOAEC	No observed adverse effect concentration
OSHA	Occupational Safety and Health Administration of the US Department of Labour
PEC	Predicted Effect Concentration
PNEC	Predicted No Effect Concentration (PNEC)
PBT	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals [Regulation (EC) No. 1907/2006])
RTECS	RTECS (Registry of Toxic Effects of Chemical Substances)
TWA	TWA (time-weighted average)
SKN*	Skin designation
SKN+	Skin sensitisation
STEL	STEL (Short Term Exposure Limit)
STOT	Specific Target Organ Toxicity
STOT RE	Specific target organ toxicity (repeated exposure)
STOT SE	Specific target organ toxicity (single exposure)
SVHC	Substances of Very High Concern
TLV	Threshold Limit Value
TRGS	Technical rules for hazardous substances, Germany
TSCA	Toxic Substances Control Act
UN	United Nations
vPvB	very persistent and very bioaccumulative
VOC	Volatile organic compounds
AwSV	Administrative regulation of water polluting substances, Germany

Key literature references and sources for data
See Section 11: TOXICOLOGICAL INFORMATION
See Section 12: ECOLOGICAL INFORMATION

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	**Method Used**
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Carcinogenicity	Calculation method

STOT - single exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration toxicity	Calculation method
Ozone	Calculation method
Corrosive to metals	Calculation method

Full text of H-Statements referred to under section 3
H272 - May intensify fire; oxidiser
H300 - Fatal if swallowed
H301 - Toxic if swallowed
H310 - Fatal in contact with skin
H312 - Harmful in contact with skin
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H330 - Fatal if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H340 - May cause genetic defects
H350 - May cause cancer
H372 - Causes damage to organs through prolonged or repeated exposure
H373 - May cause damage to organs through prolonged or repeated exposure
H360FD - May damage fertility. May damage the unborn child
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H290 - May be corrosive to metals

Training Advice Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Prepared By Hach Product Compliance Department

Restrictions on use For Laboratory Use Only.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and Regulation (EC) No. 1272/2008

End of Safety Data Sheet