



SAFETY DATA SHEET

This Safety Data Sheet was compiled in accordance with regulation 30105 dated 23 June 2017
"Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals (KKDIK)"

Revision Date 15-Apr-2024
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Version 2

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

1.1. Product identifier

Product Code(s) LCK514
Product Name LCK514 CSB/COD/DCO, Sample cuvette
Pure substance/mixture Mixture

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 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

Emergency telephone number National Poison Information Center (UZEM) - Turkey: 114
Emergency Medical Services - Turkey: 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Turkish CLP (28848), as amended

Corrosive to metals	Category 1 - (H290)
Acute toxicity - Oral	Category 4 - (H302)

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Acute toxicity - Dermal	Category 3 - (H311)
Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
Skin corrosion/irritation	Category 1 - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)
Germ cell mutagenicity	Category 1B - (H340)
Carcinogenicity	Category 1B - (H350i)
Reproductive toxicity	Category 1B - (H360FD)
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

Contains Sulfuric acid 89%, Mercury sulphate, Potassium dichromate



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.
H350i - May cause cancer by inhalation.
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/eye protection/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.
P391 - Collect spillage.
P501 - Dispose of contents/container to industrial incineration plant.

Additional information This product requires child resistant fastenings if supplied to the general public This product requires tactile warnings if supplied to the general public

2.3. Other hazards

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No information available.

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

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 Turkish CLP (28848), as amended	Specific concentration limit (SCL)	KKDIK registration number
Sulfuric acid	7664-93-9 231-639-5 (016-020-00-8) 016-020-00-8	80 - 90%	Skin Corr. 1A - H314 Eye Dam. 1 - H318	Eye Irrit. 2 :H319: 5%≤C<15% Skin Corr. 1A :H314: C≥15% Skin Irrit. 2 :H315: 5%≤C<15%	Not available
Mercury sulphate	7783-35-9 231-992-5 (080-002-00-6) 080-002-00-6	0 - 10%	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%	Not available
Potassium dichromate	7778-50-9 231-906-6 (024-002-00-6) (024-017-00-8) 024-002-00-6	0 - 10%	Ox. Sol. 2 - H272 Acute Tox. 3 - H301 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Skin Sens. 1 - H317 Acute Tox. 2 - H330 Resp. Sens. 1 - H334 Muta. 1B - H340 Carc. 1B - H350 Repr. 1B - H360FD STOT SE 3 - H335 Skin Sens. 1A - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	STOT SE 3 :H335: C≥5%	Not available
Sulfuric acid, disilver(1+) salt	10294-26-5 233-653-7 -	0 - 10%	Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		Not available

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

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. Delayed pulmonary edema may occur. Get immediate medical 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. 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. Avoid breathing vapours or mists. Use personal protective equipment as required. See section 8 for more information.

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

Symptoms	Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.
Effects of Exposure	No information available.

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

Note to doctors	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Product itself does not burn.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

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.

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 protection equipment.

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. Avoid breathing vapours or mists.

Other information Refer to protective measures listed in Sections 7 and 8.

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. 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. Avoid breathing vapours or mists.

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.

7.2. Conditions for safe storage, including any incompatibilities

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

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	Türkiye	European Union	ACGIH TLV
Sulfuric acid 7664-93-9	TWA: 0.05 mg/m ³	TWA: 0.05 mg/m ³	TWA: 0.2 mg/m ³ thoracic particulate matter
Mercury sulphate 7783-35-9	-	TWA: 0.02 mg/m ³	TWA: 0.025 mg/m ³ Hg Sk*
Potassium dichromate 7778-50-9	-	TWA: 0.005 mg/m ³ TWA: 0.010 mg/m ³ TWA: 0.025 mg/m ³	TWA: 0.0002 mg/m ³ Cr(VI) inhalable particulate matter STEL: 0.0005 mg/m ³ Cr(VI) inhalable particulate matter Sk* dermal sensitizer; respiratory sensitizer
Sulfuric acid, disilver(1+) salt 10294-26-5	TWA: 0.01 mg/m ³	TWA: 0.01 mg/m ³	TWA: 0.01 mg/m ³ Ag

Biological occupational exposure limits

Chemical name	Türkiye	European Union	ACGIH
Mercury sulphate 7783-35-9	-	-	20 µg/g creatinine - urine (Mercury) - prior to shift
Potassium dichromate 7778-50-9	-	-	0.7 µg/L - urine (total Chromium) - end of shift at end of workweek

Information on monitoring procedures Refer to European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) or equivalent national standard(s).

Derived No Effect Level (DNEL) - Workers

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Chemical name	Oral	Dermal	Inhalation
Sulfuric acid 7664-93-9	-	-	0.05 mg/m ³ [5] [6] 0.1 mg/m ³ [5] [7]
Potassium dichromate 7778-50-9	-	43 µg/kg bw/d 93 µg/kg bw/d [2] [3]	43 µg/m ³ 85 µg/m ³ [2] [3]

Notes

- [2] Fertility effects.
[3] Developmental effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Sulfuric acid 7664-93-9	0.0025 mg/L	-	0.00025 mg/L	-	-
Potassium dichromate 7778-50-9	0.00047 mg/L	0.00047 mg/L	-	-	-
Sulfuric acid, disilver(1+) salt 10294-26-5	0.04 µg/L	-	0.86 µg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Sulfuric acid 7664-93-9	0.002 mg/kg sediment dw	0.002 mg/kg sediment dw	8.8 mg/L	-	-
Potassium dichromate 7778-50-9	0.15 mg/kg sediment dw	0.15 mg/kg sediment dw	0.21 mg/L	0.035 mg/kg soil dw	17000 g/kg food
Sulfuric acid, disilver(1+) salt 10294-26-5	438.13 mg/kg sediment dw	438.13 mg/kg sediment dw	0.025 mg/L	0.794 mg/kg soil dw	-

8.2. Exposure controls

Engineering controls

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Hand protection

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.

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Chemical resistant gloves made of butyl rubber or nitrile rubber category III acco. Wear suitable gloves. Impervious gloves.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Short term	Wear protective nitrile rubber gloves	0,40 mm	>30 minutes
Long term (repeated)	Wear protective Viton™ gloves	0,70 mm	>480 minutes

Skin and body protection Wash contaminated clothing before reuse. Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

Respiratory protection 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.

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
Appearance viscous
Colour dark orange
Odour Odourless.
Odour threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Molecular weight	No data available	
pH	< 1	@ 20 °C
Melting point / freezing point	300 °C / 572 °F	
Initial boiling point and boiling range	300 °C / 572 °F	
Evaporation rate	No data available	
Vapour pressure	No data available	
Relative vapor density	No data available	
Partition coefficient	No data available	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
<u>Viscosity</u>		
Dynamic viscosity	No data available	
Kinematic viscosity	No data available	
Relative density	1.81 g/mL	@ 20 °C

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

Metal Corrosivity

Classified as corrosive to metal according to CLP criteria

Steel Corrosion Rate

2359 mm/yr

Aluminum Corrosion Rate

No data available

Explosive properties

Upper explosion limit

No data available

Lower explosion limit

No data available

Flammable properties

Flash point

No data available

Flammability

Upper flammability limit:

No data available

Lower flammability limit

No data available

Oxidising properties

No data available.

Bulk density

No data available

9.2. Other information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity

Corrosive to metal.

10.2. Chemical stability

Stability

Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact No information available.

Sensitivity to static discharge No information available.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

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Hazardous polymerisation None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Exposure to air or moisture over prolonged periods. Excessive heat.

10.5. Incompatible materials

Incompatible materials Oxidising agent. Acids. Bases. Metals.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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
Potassium dichromate	Rat LD ₅₀	48 mg/kg	None reported	None reported	LOLI
Sulfuric acid, disilver(1+) salt	Rat LD ₅₀	> 5000 mg/kg	None reported	None reported	No information available
Potassium hydrogen phthalate	Rat LD ₅₀	> 3200 mg/kg	None reported	None reported	RTECS

Dermal Exposure Route:

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium dichromate	Rat LD ₅₀	1170 mg/kg	None reported	None reported	ERMA

Inhalation (Dust/Mist) Exposure Route:

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium dichromate	Rat LC ₅₀	0.094 mg/L	4 hours	None reported	ERMA

Inhalation (Vapor) Exposure Route:

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Acute Toxicity Estimate (ATE)

ATEmix (oral)	326.70 mg/kg
ATEmix (dermal)	333.80 mg/kg
ATEmix (inhalation-dust/mist)	2.67 mg/l
ATEmix (inhalation-vapour)	33.40 mg/l

Unknown acute toxicity

0.001 % of the mixture consists of ingredient(s) of unknown toxicity.

0.001 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

0.001 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

0.001 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

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
Potassium hydrogen phthalate	OECD Test 404: Acute Dermal Corrosion/Irritation	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 serious eye damage. Causes 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 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
Potassium hydrogen phthalate	EpiOcularTM Eye Irritation Test	Human	50.3 mg	6 hours	Not corrosive or irritating to eyes	ECHA

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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	<i>in vivo</i> Assay	Guinea pig	No sensitisation responses were observed.	ECHA
Potassium hydrogen phthalate	OECD Guideline 442D (In Vitro Skin Sensitisation: ARE-Nrf2 Luciferase Test Method)	None reported	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 through prolonged or repeated exposure.

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:

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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	EU Muta Hazard
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
Potassium dichromate	Micronucleus test	Human lymphocyte	0.3 mg/L	None reported	Positive test result for mutagenicity	RTECS
Sulfuric acid, disilver(1+) salt	Mutation in mammalian somatic cells	Human lymphocyte	.08 mg/L	3 hours	Negative	ECHA
Potassium hydrogen phthalate	OECD 471	<i>Salmonella typhimurium</i>	5 mg/plate	48 hours	Negative	ECHA

Mixture invivo **Data** No data available.

Substance invivo **Data** No data available.

Carcinogenicity

Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

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

Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

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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 Abnormalities Craniofacial (including nose and tongue)	RTECS

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.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 0.001 % of components with unknown hazards to the aquatic environment.

Mixture

Acute aquatic toxicity: No data available.

Aquatic Chronic Toxicity: No data available.

Substance

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Acute aquatic toxicity: Test data reported below.

Fish:

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Potassium dichromate	96 hours	<i>Oncorhynchus mykiss</i>	LC ₅₀	12.3 mg/L	ERMA
Sulfuric acid, disilver(1+) salt	96 hours	<i>Pimephales promelas</i>	LC ₅₀	0.0012 mg/L	ECHA
Potassium hydrogen phthalate	96 hours	None reported	LC ₅₀	9323 mg/L	ECOSARS

Crustacea:

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Potassium dichromate	48 Hours	<i>Daphnia magna</i>	EC ₅₀	0.035 mg/L	ERMA
Sulfuric acid, disilver(1+) salt	48 Hours	<i>Daphnia magna</i>	LC ₅₀	0.00022 mg/L	ECHA
Potassium hydrogen phthalate	48 Hours	None reported	LC ₅₀	4859 mg/L	ECOSARS

Algae:

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Potassium hydrogen phthalate	96 hours	None reported	EC ₅₀	2538 mg/L	ECOSARS

Aquatic Chronic Toxicity: Test data reported below.

Crustacea:

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sulfuric acid, disilver(1+) salt	7 days	<i>Ceriodaphnia dubia</i>	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	The substance is not PBT / vPvB
Potassium dichromate	PBT assessment does not apply
Sulfuric acid, disilver(1+) salt	PBT assessment does not apply

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

Ozone: Not applicable

Ozone depletion potential (ODP): No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

IMDG

14.1 UN number or ID number	UN2922
14.2 UN proper shipping name	CORROSIVE LIQUID, TOXIC, N.O.S. (SULFURIC ACID, SULFURIC ACID, MERCURY(II) SALT)
14.3 Transport hazard class(es)	8
Subsidiary hazard class	6.1
14.4 Packing Group	II
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	274
EmS-No	F-A, S-B
14.7 Maritime transport in bulk according to IMO instruments	No information available

ADR

14.1 UN number or ID number	2922
14.2 UN proper shipping name	CORROSIVE LIQUID, TOXIC, N.O.S. (Sulfuric acid, Sulfuric acid, mercury(II) salt)
14.3 Transport hazard class(es)	8
Subsidiary class	6.1
14.4 Packing Group	II
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	274
Classification code	CT1
Tunnel restriction code	(E)

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IATA

14.1 UN number or ID number	UN2922
14.2 UN proper shipping name	Corrosive liquid, toxic, n.o.s. (Sulfuric acid, Sulfuric acid, mercury(II) salt)
14.3 Transport hazard class(es)	8
Subsidiary hazard class	6.1
14.4 Packing group	II
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

Additional information

Not applicable

SECTION 15: Regulatory information

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

National regulations

This Safety Data Sheet was compiled in accordance with regulation 30105 dated 23 June 2017 "Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals (KKDİK)"

This product is classified in accordance with 28848 dated 11 December 2013 "The Ministry of Environment and Urbanisation of the Republic of Türkiye Regulation on Classification, Labelling and Packaging (CLP) of Dangerous Substances and Preparations" As amended by regulation 31330 dated 10 December 2020 "Regulation on Classification, Labelling and Packaging of Substances and Mixtures"

Please refer to the following regulations or other national measures that are related.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction

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

Health and Safety Measures Involving Chemical Substances at Workplaces - Prohibited Substances

None

Dangerous substance category per Regulation on prevention of major industrial accidents and lessening their adverse impacts (30702)

E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

Ozone-depleting substances (ODS)

Not applicable

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The Rotterdam Convention

Not applicable

Chemical name	Chemicals Subject to Prior Informed Consent (PIC)
Mercury sulphate 7783-35-9	X

The Stockholm Convention on Persistent Organic Pollutants

Not applicable

The Montreal Protocol on Substances that Deplete the Ozone Layer

Not applicable

International Inventories

KKDIK	Contact supplier for inventory compliance status
TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies
NZIoC	-

KKDIK - Turkish Inventory and Control of Chemicals

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

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

NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

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

Legend

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**	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 Organization
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)
MAK	Maximale Arbeitsplatz-Konzentration, a German expression corresponding to threshold limit value, which relates to safe daily exposure levels to chemical substances
NOAEL	NOAEL (No observed adverse effect level)
NOAEC	No observed adverse effect concentration
OSHA	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)
SEA	Regulation on Classification, Labeling and Packaging of Substances and Mixtures (Official Gazette: 28848 (repeated), 11.12.2013)
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
TWA	TWA (time-weighted average)
UN	United Nations
vPvB	very persistent and very bioaccumulative
VOC	Volatile organic compounds
AwSV	Administrative regulation of water polluting substances, Germany

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

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
- 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
- H350i - May cause cancer by inhalation
- H360FD - May damage fertility. May damage the unborn child
- H372 - Causes damage to organs through prolonged or repeated exposure
- H373 - May cause damage to organs through prolonged or repeated exposure
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	SKN*	Skin designation

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
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration toxicity	Calculation method
Ozone	Calculation method
Corrosive to metals	On basis of test data

Key literature references and sources for data used to compile the SDS

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- Environmental Protection Agency
- Acute Exposure Guideline Level(s) (AEGl(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

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U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

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

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End of Safety Data Sheet