

Part 1 SAFETY DATA SHEET

29204 dated 13 December 2014, "The Ministry of Environment and Urbanization of the Republic of Turkey on Hazardous Materials and Mixtures Regulation on Safety Data Sheets

1. Identification

1.1. Product identifier

Product Code(s) LCK314

Product Name CSB/COD/DCO

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 No information available

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

1.4. Emergency telephone number

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

- Turkey: 112

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Classification T.C. 28848

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 Sub-category A - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)
Corrosive to metals	Category 1 - (H290)

2.2. Label elements

Contains Sulfuric acid 90%, Sulfuric acid, disilver(1+) salt, Sulfuric acid, mercury(2+) salt (1:1)



Hazard statements

- H302 Harmful if swallowed
- H311 Toxic in contact with skin
- H314 Causes severe skin burns and eye damage
- H332 Harmful if inhaled
- H373 May cause damage to organs through prolonged or repeated exposure
- H410 Very toxic to aquatic life with long lasting effects
- H290 May be corrosive to metals
- P260 Do not breathe dust/fume/gas/mist/vapors/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): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- P310 Immediately call a POISON CENTER or doctor/physician
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P361 + P364 Take off immediately all contaminated clothing and wash it before reuse
- P390 Absorb spillage to prevent material damage

Additional information

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

2.3. Other hazards

No information available

PBT and vPvB assessment

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

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)
Sulfuric acid	7664-93-9 (016-020-00-8) 231-639-5 016-020-00-8	80 - 90%	Skin Corr. 1A - H314	Eye Irrit. 2 :: 5%<=C<15% Skin Corr. 1A :: C>=15% Skin Irrit. 2 :: 5%<=C<15%
Sulfuric acid, mercury(2+) salt (1:1)	7783-35-9 (080-002-00-6) 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 :: 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	-
Potassium dichromate	7778-50-9 (024-002-00-6) (024-017-00-8) 231-906-6 024-002-00-6	<0.1%	Ox. Sol. 2 - H272 Acute Tox. 3 - H301 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Skin Sens. 1 - H317 Eye Dam. 1 - H318 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 -	STOT SE 3 :: C>=5%

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

4. First-aid measures

4.1. Description of first aid measures

General advice

Take off contaminated clothing and shoes immediately. Immediately call a POISON CENTER or doctor/physician. Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical

attention immediately. If breathing is difficult, (trained personnel should) give oxygen. Get

immediate medical attention.

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Eve contact

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.

Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce Ingestion

vomiting. Get immediate medical attention.

Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Self-protection of the first aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

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

Burning sensation. **Symptoms**

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

Treat symptomatically. Note to physicians

5. Fire-fighting measures

5.1. Extinguishing media

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

surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Do not scatter spilled material with high pressure water streams. Unsuitable extinguishing media

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 vapors.

Hazardous combustion products Sulfur 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 protection equipment.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal Personal precautions

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protective equipment as required. Evacuate personnel to safe areas. Attention! Corrosive

material. Keep people away from and upwind of spill/leak.

Other information Refer to protective measures listed in Sections 7 and 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). Place in appropriate chemical waste container.

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.

7. Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Ensure adequate

ventilation. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Do not breathe

dust/fume/gas/mist/vapors/spray.

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 after work. Contaminated work clothing should not be allowed out of the workplace. Take off 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 locked up.

7.3. Specific end use(s)

Specific use(s) Analytical reagent.

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

8. Exposure controls/personal protection

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8.1. Control parameters

Chemical name	Turkey	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/m³ thoracic particulate matter
Sulfuric acid, mercury(2+) salt (1:1) 7783-35-9	-	TWA: 0.02 mg/m ³	TWA: 0.025 mg/m ³ Hg S*
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
Potassium dichromate 7778-50-9	-	TWA: 0.005 mg/m ³ TWA: 0.010 mg/m ³ TWA: 0.025 mg/m ³	dermal sensitizer;respiratory sensitizer STEL: 0.0005 mg/m³ Cr(VI) inhalable particulate matter TWA: 0.0002 mg/m³ Cr(VI) inhalable particulate matter S*

Chemical name	Turkey	European Union	ACGIH
Sulfuric acid, mercury(2+) salt (1:1)	-	-	35 µg/g creatinine - urine
7783-35-9			(Total inorganic mercury) -
			prior to shift
			15 μg/L - blood (Total
			inorganic mercury) - end of
			shift at end of workweek
Potassium dichromate	-	-	25 μg/L - urine (Total
7778-50-9			chromium) - end of shift at end
			of workweek
			10 μg/L - urine (Total
			chromium) - increase during
			shift

Derived No Effect Level (DNEL)

No information available.

Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls

Personal protective equipment

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

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	0,40 mm	>30 minutes				

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Cert

ABEK-P3.

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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 after work. Contaminated work clothing should not be allowed out of the workplace. Take off 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.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid

Color yellow-orange Odor Odorless

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

Molecular weight No data available

pH ~ 1 @ 20 °C

Melting point / freezing point No data available

Initial boiling point and boiling range 300 °C / 572 °F

Evaporation rate No data available

Vapor pressure No data available

Relative vapor density No data available

Specific Gravity No data available

Partition coefficient No data available

Soil Organic Carbon-Water Partition

Coefficient
Autoignition temperature

No data available

No data available

Decomposition temperatureNo data available

Dynamic viscosity

No data available

Kinematic viscosity No data 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

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Chemical Name_	Solubility classification	<u>Solubility</u>	Solubility Temperature_
None reported	No information available	No data available	No information available

Metal Corrosivity

Classified as corrosive to metal according to GHS criteria

Steel Corrosion RateNo data availableAluminum Corrosion RateNo data available

Explosive properties

Upper explosion limitNo data availableLower explosion limitNo data available

Flammable properties

Flash point No data available

Flammability

Upper flammability limit:No data availableLower flammability limit:No data available

Oxidizing properties No data available.

Bulk density Not applicable

9.2. Other information

No information available.

10. Stability and reactivity

10.1. Reactivity

Reactivity Reacts violently with water. Corrosive to metal.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions
None under normal processing.

10.4. Conditions to avoid

Conditions to avoid To avoid thermal decomposition, do not overheat. Temperatures above 300 °C / 572 °F.

Exposure to air or moisture over prolonged periods.

10.5. Incompatible materials

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

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metals.

10.6. Hazardous decomposition products

Hazardous Decomposition Products Thermal decomposition can lead to release of toxic/corrosive gases and vapors. Sulfur oxides. Chromium trioxide.

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
Sulfuric acid, disilver(1+) salt	Rat LD ₅₀	> 5000 mg/kg	None reported	None reported	Vendor SDS
Potassium dichromate	Rat LD ₅₀	48 mg/kg	None reported	None reported	LOLI

Dermal Exposure Route:

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

Inhalation (Dust/Mist) Exposure Route:

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

Acute Toxicity Estimations (ATE)

route remote zemmaneme (***=)	
ATEmix (oral)	332.20 mg/kg
ATEmix (dermal)	331.60 mg/kg
ATEmix (inhalation-dust/mist)	3.32 mg/l
ATEmix (inhalation-vapor)	33.22 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

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- 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 (vapor)
- 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
Sulfuric acid, mercury(2+) salt (1:1)	Existing human experience	Human	None reported	None reported	Skin irritant	GESTIS
Sulfuric acid, disilver(1+) salt	Standard 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
Sulfuric acid, mercury(2+) salt (1:1)	Existing human experience	Human	None reported	None reported	Eye irritant	GESTIS
Sulfuric acid, disilver(1+) salt	Standard Draize Test	Rabbit	180 mg	None reported	Corrosive to eyes	ECHA

Respiratory or skin sensitization

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

Mixture

No data available.

Substance

No data available.

Chemical name	Test method	Species	Results	Key literature references and sources for data
Sulfuric acid, disilver(1+) salt	in vivo Assay	Guinea pig	Not confirmed to be a skin sensitizer	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∟∘	0.144 mg/L	5 minutes	Lungs, Thorax, or Respiration	RTECS
ı					Dyspnea	

STOT - repeated exposure

May cause damage to organs.

Mixture

No data available.

Substance

Test data reported below.

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∟₀	0.003 mg/L	168 days	Musculoskeletal Changes in teeth and supporting	RTECS
				structures	

Germ cell mutagenicity

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

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	Hamster ovary	4 mmol/L	None reported	Positive test result for	
	analysis				mutagenicity	available
Sulfuric acid,	Mutation in	Human lymphocyte	.08 mg/L	3 hours	Negative	ECHA
disilver(1+) salt	mammalian					

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	somatic cells					
Potassium dichromate	Micronucleus test	Human lymphocyte	0.3 mg/L	None reported	Positive test result for	RTECS
					mutagenicity	

Mixture invivo **Data** No data available.

Substance invivo **Data** No data available.

Carcinogenicity

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

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

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

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⊾o	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	name Endpoint Reported Ex		Exposure	Toxicological effects	Key literature references and
	type	dose	time	-	sources for data

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Sulfuric acid	Rabbit	0.02 mg/L	7 hours	Specific Developmental	No information available
	TCLo			Abnormalities	
				Musculoskeletal system	

Aspiration hazard

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

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

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

Aquatic Acute Toxicity: No data available.

Aquatic Chronic Toxicity: No data available.

Substance

Aquatic Acute Toxicity: Test data reported below.

Fish:

Chemical name	Exposure	Species	Endpoint	Reported dose	Key literature references and
	time		type		sources for data
Sulfuric acid, disilver(1+) salt	96 hours	Pimephales promelas	LC ₅₀	0.0012 mg/L	GESTIS
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	Ceriodaphnia dubia	LC50	0.0045 mg/L	GESTIS
Ī	Potassium dichromate	48 Hours	Daphnia magna	EC ₅₀	0.035 mg/L	ERMA

Aquatic Chronic Toxicity: No data available.

12.2. Persistence and degradability

Mixture: No data available.

12.3. Bioaccumulative potential

Mixture: No data available.

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Partition coefficient: No data available

12.4. Mobility in soil

Soil Organic Carbon-Water Partition No data available

Coefficient:

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	
Sulfuric acid, disilver(1+) salt	PBT assessment does not apply	
Potassium dichromate	PBT assessment does not apply	

12.6. Other adverse effects

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

Ozone: Not applicable

Ozone depletion potential (ODP): No information available

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.

14. Transport information

IMDG

14.1 UN number or ID number UN3316
14.2 Proper shipping name Not regulated

14.3 Transport hazard class(es) 9

14.4 Packing Group Not regulated

Description UN3316, CHEMICAL KIT, 9, Marine pollutant

14.5 Marine pollutant Not applicable

Environmental hazards Yes
14.6 Special precautions for user
EmS-No 251, 340
F-A, S-P

14.7. Transport in bulk according to No information available

Annex II of MARPOL and the IBC

Code

RID

14.1 UN/ID no UN3316 **14.2 Proper shipping name** CHEMICAL KIT

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14.3 Transport hazard class(es) 9 Labels 9 14.4 Packing Group II

Description UN3316, CHEMICAL KIT, 9, II, Environmentally Hazardous

14.5 Environmental hazardsYes14.6 Special ProvisionsNoneClassification codeM11

ADR

14.1 UN number or ID number UN3316
14.2 Proper shipping name CHEMICAL KIT

14.3 Transport hazard class(es) 9 Labels 9 14.4 Packing Group ||

Description UN3316, CHEMICAL KIT, 9, II, Environmentally Hazardous

14.5 Environmental hazardsYes14.6 Special precautions for user251, 340Classification codeM11Tunnel restriction code(E)

IATA

14.1 UN number or ID number UN3316 **14.2 Proper shipping name** UN3regulated

14.3 Transport hazard class(es) 9
14.4 Packing group

Description UN3316, Chemical kit, 9

14.5 Environmental hazardsYes14.6 Special precautions for userNoneERG Code9L

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 29204 dated 13 December 2014, "The Ministry of Environment and Urbanization of the Republic of Turkey on Hazardous Materials and Mixtures Regulation on Safety Data Sheets".

This product is classified in accordance with 28848 dated 11 December 2013 "The Ministry of Environment, Urbanization and Climate Change of the Republic of Turkey By-Law on the Classification, Labelling and Packaging of Substances and Mixtures (SEA)".

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

Chemical name	Restricted substance per REACH Annex	Substance subject to authorization per
	XVII	REACH Annex XIV
Sulfuric acid, mercury(2+) salt (1:1)	18	
Potassium dichromate	28	
	29	
	30	
	47	

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Persistent Organic Pollutants

Not applicable

International Inventories

KKDIK Contact supplier for inventory compliance status

Complies **TSCA DSL/NDSL** Complies **EINECS/ELINCS** Complies **ENCS** Complies Complies **IECSC KECL - Existing substances** Complies Complies **PICCS AICS** Complies

KKDIK - Kimyasalların Kaydı, Değerlendirmesi, İzni ve Kısıtlaması

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

15.2. Chemical safety assessment

Chemical Safety Report No information available

16. Other information

Issue Date 20-01-2005

Revision Date 08-Mar-2023

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 (The European Chemicals Agency)

EC50 Effective Concentration to 50% of a test population

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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 (Occupational Safety and Health Administration of the US Department of Labor)

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])

RID Règlement international concernant le transport des marchandises dangereuses par chemin

de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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 sensitization

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

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 - Vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method

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Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	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	On basis of test data

Full text of H-Statements referred to under section 3

H272 - May intensify fire; oxidizer

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 AdviceThe personnel assigned to the transportation of this gas must have a certificate attesting to

their qualification and awarded by an acknowledged organization.

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.

Further information 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.

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.

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End of Safety Data Sheet