

Safety Data Sheet

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Classification according to Regulation (EC) No. 1272/2008 [CLP]

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

Product identifier

Product code	S1-10-EN-CH-KIT
Product name	QuEChERS EXTRACTION KIT EN Method
Unique Formula Identifier (UFI)	Not Applicable
Chemical Name	Not Applicable
REACH registration number	No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

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

Relevant identified uses	For research use only
Use Description Code	SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen), PROC15 - Use as laboratory reagent, PC21 - Laboratory chemicals, SU24 - Scientific research and development
Uses advised against	Not for consumer use.

Details of the supplier of the safety data sheet

Manufacturer / Supplier

Thermo Fisher Scientific
197 Cardiff Valley Road
RockWood, TN 37854

Thermo Fisher Scientific
Tudor Road
Cheshire, WA7 1AT, United Kingdom
Phone: +44-1928-534000
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Thermo Fisher Scientific (Bremen) GmbH
Hanna-Kunath-Str. 11
28199 Bremen
Germany
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Email: cmd.sds@thermofisher.com

Emergency telephone number

24 hour Emergency Response for Hazardous Materials Within the USA + Canada: 1-800-424-9300 and
[or Dangerous Goods] Incident. Spill, Leak, Fire, 1-703-527-3887
Exposure, or Accident. Call CHEMTREC Outside the USA + Canada: 1-703-741-5970

Country Specific Emergency Number (if available):

CHEMTREC Ireland (Dublin) +(353)-19014670 (Greeting Language: English and Irish)
CHEMTREC UK (London) +(44)-870-8200418 (Greeting Language: English)

SECTION 2: Hazards identification

Classification of the substance or mixture

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

Physical hazards

Not Hazardous

Health hazards

Not Hazardous

Environmental hazards

Not Hazardous

Additional information

Not Applicable

Label elements

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

Hazard pictograms

No Pictogram

Signal Word

None

Hazard Statements

Not Applicable

EU Specific Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

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Disposal

Not Applicable

Other hazards

Not Applicable.

SECTION 3: Composition/information on ingredients

Mixtures

Chemical Name	CAS No	EINECS-No.	Weight-%	REACH registration number	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Magnesium sulfate	7487-88-9	231-298-2	61.5	01-2119486789-11-X XXX	Not classified
Sodium chloride	7647-14-5	231-598-3	15.4	01-2119485491-33-X XXX	Not classified
Disodium citrate sesquihydrate	6132-05-4	-	7.7	-	Not classified
Trisodium citrate dihydrate	6132-04-3	-	15.4	-	Not classified

Chemical Name	Specific concentration limit (SCL)	M-Factor	Acute Toxicity Estimate
Magnesium sulfate	-	-	-
Sodium chloride	-	-	-
Disodium citrate sesquihydrate	-	-	-
Trisodium citrate dihydrate	-	-	-

SECTION 4: First aid measures

Description of first aid measures**Skin contact**

Rinse skin with water. Immediate medical attention is not required.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

Inhalation

Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.

Notes to Physician

Treat symptomatically.

Most important symptoms and effects, both acute and delayed

Not Applicable

Indication of any immediate medical attention and special treatment needed

None.

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SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media

No information available.

Special hazards arising from the substance or mixture Not known

Hazardous Combustion Products

No data available.

Advice for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Always wear recommended Personal Protective Equipment

Use personal protection equipment

See section 8 for more information

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

Reference to other sections

See section 8 for more information.

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers. Keep container tightly closed.

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	EU OEL (TWA)	EU OEL (STEL)	EU Skin Notation
Magnesium sulfate 7487-88-9	None	None	None
Sodium chloride 7647-14-5	None	None	None
Disodium citrate sesquihydrate 6132-05-4	None	None	None
Trisodium citrate dihydrate 6132-04-3	None	None	None

Chemical Name	Austria	Belgium (TWA)	Czech Republic
Magnesium sulfate 7487-88-9	None	None	None
Sodium chloride 7647-14-5	None	None	None
Disodium citrate sesquihydrate 6132-05-4	None	None	None
Trisodium citrate dihydrate 6132-04-3	None	None	None

Chemical Name	Denmark (TWA)	Finland OEL (TWA)	France OEL (VME)
Magnesium sulfate 7487-88-9	None	None	None
Sodium chloride 7647-14-5	None	None	None
Disodium citrate sesquihydrate 6132-05-4	None	None	None
Trisodium citrate dihydrate 6132-04-3	None	None	None

Chemical Name	Germany OEL (TWA)	Ireland (TWA)	Italy OEL (TWA)
Magnesium sulfate 7487-88-9	None	None	None
Sodium chloride 7647-14-5	None	None	None
Disodium citrate sesquihydrate 6132-05-4	None	None	None
Trisodium citrate dihydrate 6132-04-3	None	None	None

Chemical Name	Lithuania OEL (TWA)	Netherlands OEL (MAC)	Norway
Magnesium sulfate 7487-88-9	None	None	None
Sodium chloride 7647-14-5	5 mg/m ³	None	None
Disodium citrate sesquihydrate 6132-05-4	None	None	None
Trisodium citrate dihydrate 6132-04-3	None	None	None

Chemical Name	Poland	Portugal	Spain OEL (TWA)
Magnesium sulfate 7487-88-9	None	None	None
Sodium chloride 7647-14-5	None	None	None
Disodium citrate sesquihydrate 6132-05-4	None	None	None
Trisodium citrate dihydrate 6132-04-3	None	None	None

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6132-04-3			
Chemical Name	Sweden - Occupational Exposure Limits - TLVs (LLVs)	Switzerland	United Kingdom
Magnesium sulfate 7487-88-9	None	None	None
Sodium chloride 7647-14-5	None	None	None
Disodium citrate sesquihydrate 6132-05-4	None	None	None
Trisodium citrate dihydrate 6132-04-3	None	None	None

Derived No Effect Level (DNEL)

See table for values

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
Magnesium sulfate 7487-88-9 (61.5)	None	None	None	DNEL = 21.3mg/kg bw/day
Sodium chloride 7647-14-5 (15.4)	None	DNEL = 295.52mg/kg bw/day	None	DNEL = 295.52mg/kg bw/day
Disodium citrate sesquihydrate 6132-05-4 (7.7)	None	None	None	None
Trisodium citrate dihydrate 6132-04-3 (15.4)	None	None	None	None

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Magnesium sulfate 7487-88-9 (61.5)	None	None	None	DNEL = 37.6mg/m ³
Sodium chloride 7647-14-5 (15.4)	None	DNEL = 2068.62mg/m ³	None	DNEL = 2068.62mg/m ³
Disodium citrate sesquihydrate 6132-05-4 (7.7)	None	None	None	None
Trisodium citrate dihydrate 6132-04-3 (15.4)	None	None	None	None

Predicted No Effect Concentration (PNEC)

See table for values

Chemical Name	Fresh water sediment	Fresh water	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
Magnesium sulfate 7487-88-9	None	None	PNEC = 6.8mg/L	PNEC = 10mg/L	None
Sodium chloride 7647-14-5	None	None	None	PNEC = 500mg/L	PNEC = 4.86mg/kg soil dw
Disodium citrate sesquihydrate 6132-05-4	None	None	None	None	None
Trisodium citrate dihydrate 6132-04-3	None	None	None	None	None

Component	Marine water	Marine water sediment	Marine water Intermittent	Food chain	Air
Magnesium sulfate 7487-88-9 (61.5)	PNEC = 0.068mg/L	None	None	None	None
Sodium chloride 7647-14-5 (15.4)	None	None	None	None	None
Disodium citrate sesquihydrate 6132-05-4 (7.7)	None	None	None	None	None
Trisodium citrate dihydrate	None	None	None	None	None

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Engineering Measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal protection equipment

Respiratory protection In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

Hand protection Wear suitable gloves Glove material: Compatible chemical-resistant gloves.

Eye protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

Avoid discharge into drains and waterways whenever possible.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	powder	
Colour	white	
Odour	Odourless	
Molecular Weight	No data	
Melting point / melting range	°C No data	°F No data
Boiling point / boiling range	°C No data	°F No data
Flammability (solid, gas)	No data	
Lower explosion limit	No data	
Upper explosion limit	No data	
Flash point	°C No data	°F No data
Autoignition Temperature	°C No data	°F No data
Decomposition temperature	°C No data	°F No data
Evaporation rate	No data	
Viscosity	No data	
Solubility	No data	
Partition coefficient: n-octanol/water	No data	
Vapour Pressure	No data	
Specific gravity	No data	
Relative density	No data	
Vapour density	No data	
Explosive properties	No data	
Oxidising properties	No data	
Particle characteristics	No data	

Other information

Information with regards to physical hazard classes

No information available

Other safety characteristics

No information available

SECTION 10: Stability and reactivity

Reactivity	None known.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Hazardous reaction has not been reported.
Conditions to avoid	No information available.
Incompatible materials	No dangerous reaction known under conditions of normal use.
Hazardous decomposition products	No data available.

SECTION 11: Toxicological information

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

Product Information No acute toxicity information is available for this product

Acute Toxicity

To the best of our knowledge, the chemical, physical, biological, and toxicological properties of this product have not been thoroughly investigated.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Magnesium sulfate	No data available	No data available	No data available
Sodium chloride	= 3 g/kg (Rat)	> 10000 mg/kg(Rabbit)	>42mg/L(Rat)
Disodium citrate sesquihydrate	No data available	No data available	No data available
Trisodium citrate dihydrate	No data available	No data available	No data available

Principal Routes of Exposure

Skin corrosion/irritation No information available

Serious eye damage/irritation No information available

Respiratory or skin sensitisation No information available

Specific target organ toxicity (STOT) – single exposure No information available

Specific target organ toxicity (STOT) – repeated exposure No information available

Carcinogenicity No information available

Germ cell mutagenicity No information available

Reproductive Toxicity No information available

Aspiration Hazard No information available

Information on other hazards

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

SECTION 12: Ecological information

Toxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Magnesium sulfate	Desmodesmus subspicatus EC50=2700 mg/L (72 h)	Daphnia magna EC50 266.4 - 417.3 mg/L (48 h)	No data available	No data available	No data available
Sodium chloride	No data available	Daphnia magna EC50 340.7 - 469.2 mg/L (48 h) Daphnia magna EC50=1000 mg/L (48 h)	No data available	No data available	No data available
Disodium citrate sesquihydrate	No data available	No data available	No data available	No data available	No data available
Trisodium citrate dihydrate	No data available	No data available	No data available	No data available	No data available

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Mobility in soil No information available.

Results of PBT and vPvB assessment No information available.

Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors

Other adverse effects

Persistent Organic Pollutant This product does not contain any known or suspected substance

Ozone depletion potential (ODP) This product does not contain any known or suspected substance

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations

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UN number or ID number Not Applicable
UN proper shipping name Not Applicable
Transport hazard class(es) Not Applicable
Packing group Not Applicable

Environmental hazards

Not Applicable

Special precautions for user

Not Applicable

Maritime transport in bulk according to IMO instruments

Not Applicable.

SECTION 15: Regulatory information

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

None.

Substances of Very High Concern

None

Substance subject to authorisation per REACH Annex XIV

None

Restricted substances under EC 1907/2006, Annex XVII

None

Regulation (EC) No 649/2012 (Rotterdam Convention - export/import of dangerous chemicals)

None

Regulation (EU) No 2019/1021 (Stockholm Convention – persistent organic pollutants)

None

EU - Substances Depleting the Ozone layer (1005/2009)

None

German Water hazard classes (Wassergefährdungsklassen)

Chemical Name	Weight-%	Water hazard class (WGK)
Magnesium sulfate	61.5	hazard class 1 - slightly hazardous to water

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Sodium chloride	15.4	hazard class 1 - slightly hazardous to water
Trisodium citrate dihydrate	15.4	hazard class 1 - slightly hazardous to water

Other International Inventories

Chemical Name	EINECS (European Union)	ELINCS (European List of Notified Chemical Substances)	ENCS (Japan)	PICCS (Philippines)
Magnesium sulfate	Listed	-	Listed	Listed
Sodium chloride	Listed	-	Listed	Listed
Disodium citrate sesquihydrate	-	-	-	-
Trisodium citrate dihydrate	-	-	Listed	Listed

Chemical Name	AICS (Australia)	South Korea (KECL)	Canada (DSL)	NDSL
Magnesium sulfate	Listed	Listed	Listed	-
Sodium chloride	Listed	Listed	Listed	-
Disodium citrate sesquihydrate	-	Listed	-	-
Trisodium citrate dihydrate	Listed	Listed	-	-

Chemical safety assessment

No Chemical safety assessment has been carried out.

SECTION 16: Other information

Reason for revision Update according to Commission Regulation EU No. 2020/878
Revision number 1
Revision date 11-Nov-2021

References

- ECHA: <http://echa.europa.eu/>
- TOXNET: <http://toxnet.nlm.nih.gov/>
- eChemPortal: <http://www.echemportal.org/>
- LOLI database: <https://www.chemadvisor.com/loli-database>

Classification and procedure used to derive the classification for mixtures according to Regulation (EC)

1272/2008 [CLP]:

Not classified

Abbreviations and acronyms

TWA - Time-Weighted Average

OELs - Occupational Exposure Limits

STEL - Short Term Exposure Limit

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

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

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

CEPA - Canadian Environmental Protection Act

EPA - Environmental Protection Agency

OSHA - Occupational Safety and Health Administration of the US Department of Labour

IATA - International Air Transport Association

DOT - Department of Transportation

IMDG - International Maritime Dangerous Goods

ACGIH - American Conference of Governmental Industrial Hygienists

NIOSH - National Institute for Occupational Safety and Health

AIHA - American Industrial Hygiene Association

HMIS - Department of Defense Hazardous Materials Information System

NTP - National Toxicology Program

IARC - International Agency for Research on Cancer

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006.

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

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