

# **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-KIT

Product name EN EXTRACTION KIT, 10G SAMPLE SIZE.4G MGSO4, 1GNACL, 1G

NA-CITRATE, 0.5G NA-CITRATESESQUIHYDRATE IN POUCHES AND 50ML

TUBES 50/PK

Unique Formula Identifier

(UFI)

er 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 Fax: +44-1928-588106

Thermo Fisher Scientific (Bremen) GmbH Hanna-Kunath-Str. 11

28199 Bremen Germany

Phone: +49 (0)421-5493-219 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

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# Signal Word

None

## **Hazard Statements**

Not Applicable

## **EU Specific Hazard Statements**

Not Applicable

## **Precautionary Statements**

## Prevention

Not Applicable

## Response

Not Applicable

## Storage

Not Applicable

## 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	62	01-2119486789-11-X XXX	Not classified
Sodium chloride	7647-14-5	231-598-3	15	01-2119485491-33-X XXX	Not classified
Disodium citrate sesquihydrate	6132-05-4	-	15	-	Not classified
Trisodium citrate dihydrate	6132-04-3	-	8	-	Not classified

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

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#### 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.

## SECTION 5: Firefighting measures

## **Extinguishing media**

Suitable extinguishing media Water spray. Carbon dioxide (CO<sub>2</sub>). 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.

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## 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.

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# 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/m³	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	None	None	None
7487-88-9			
Sodium chloride	None	None	None
7647-14-5			
Disodium citrate sesquihydrate	None	None	None

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6132-05-4			
Trisodium citrate dihydrate	None	None	None
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	Acute effects systemic		Chronic effects systemic
	(Dermal)	(Dermal)	(Dermal)	(Dermal)
Magnesium sulfate 7487-88-9 ( 62 )	None	None	None	DNEL = 21.3mg/kg bw/day
Sodium chloride 7647-14-5 ( 15 )	None	DNEL = 295.52mg/kg bw/day	None	DNEL = 295.52mg/kg bw/day
Disodium citrate sesquihydrate 6132-05-4 ( 15 )	None	None	None	None
Trisodium citrate dihydrate 6132-04-3 ( 8 )	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 ( 62 )	None	None	None	DNEL = 37.6mg/m <sup>3</sup>
Sodium chloride 7647-14-5 ( 15 )	None	DNEL = 2068.62mg/m <sup>3</sup>	None	DNEL = 2068.62mg/m <sup>3</sup>
Disodium citrate sesquihydrate 6132-05-4 ( 15 )	None	None	None	None
Trisodium citrate dihydrate 6132-04-3 ( 8 )	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 ( 62 )	PNEC = 0.068mg/L	None	None	None	None
Sodium chloride 7647-14-5 ( 15 )	None	None	None	None	None

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Disodium citrate	None	None	None	None	None
sesquihydrate					
6132-05-4 ( 15 )					
Trisodium citrate dihydrate	None	None	None	None	None
6132-04-3 ( 8 )					

**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.

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## SECTION 9: Physical and chemical properties

## Information on basic physical and chemical properties

Physical state powder
Colour No data
Odour No data
Molecular Weight No data
Melting point / melting range °C No data

Melting point / melting range°C No data°F No dataBoiling point / boiling range°C No data°F No data

Flammability (solid, gas)

Lower explosion limit

Upper explosion limit

Flash point

No data

No data

No data

Evaporation rate
Viscosity
No data
Solubility
No data
Partition coefficient:
No data

n-octanol/water

Vapour PressureNo dataSpecific gravityNo dataRelative densityNo dataVapour densityNo dataExplosive propertiesNo dataOxidising propertiesNo dataParticle characteristicsNo 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.

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## 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 No information available

(STOT) - single exposure

Specific target organ toxicity No information available

(STOT) - repeated exposure

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 EC50266.4 - 417.3 mg/L (48 h)	No data available	No data available	No data available
Sodium chloride	No data available	Daphnia magna EC50340.7 - 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 according to 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

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Not regulated in the meaning of transport regulations

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

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)

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Chemical Name	Weight-%	Water hazard class (WGK)
Magnesium sulfate	62	hazard class 1 - slightly hazardous to water
Sodium chloride	15	hazard class 1 - slightly hazardous to water
Trisodium citrate dihydrate	8	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

Revision date 10-Jan-2024

#### 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

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PURPOSE"		