



/ K+S KALI GmbH, P.O. Box 10 20 29, D-34111 Kassel

To whom it may concern

Valid until the end of 2018

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TS_Epsom Salt FCC_Product General
Information V03c

Product General Information

Product Name: **Epsom salt chemically pure, FCC**

Chemical Name: Magnesium sulfate heptahydrate

CAS-No.: 10034-99-8, EINECS-No.: 231-298-2

Customs Tariff Number: 2833 21 00

FDA Registration number: 10981571620

Allergens

During the manufacturing of above mentioned product we do not use or add intentionally any additives, preservatives, flavours etc. The product itself does not contain, is not derived from and/or cannot be cross-contaminated by any of the following:

Legal allergens

- Cereals containing gluten (i.e. wheat, rye, barley, oats, spelt, kamut or their hybridised strains) and products thereof
- Crustaceans and products thereof
- Fish and products thereof
- Eggs and products thereof
- Peanuts and products thereof
- Soybeans and products thereof
- Milk and products thereof
- Nuts, i.e. almonds, hazelnuts, walnuts, cashews, pecan nuts, Brazil nuts, pistachio nuts, macadamia nuts and Queensland nuts and products thereof
- Celery and products thereof
- Mustard and products thereof
- Sesame seeds and products thereof
- Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre expressed as SO₂
- Lupin and products thereof
- Molluscs and product thereof

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Bank account: Deutsche Bank AG · S.W.I.F.T.-code: DEUTDEFF520 · IBAN DE84 5207 0012 0025 1520 00
Chairman of the Supervisory Board: Norbert Steiner · Managing Directors: Dr. Rainer Gerling, Alexa Hergenröther
Company seat: Kassel · Registered in Kassel (HRB 7452)

A K+S Group Company

Additional allergens

- Lactose and products thereof
- Cocoa and products thereof
- Glutamate and products thereof
- Chicken meat and products thereof
- Coriander and products thereof
- Corn/ maize and products thereof
- Legumes and products thereof
- Beef and products thereof
- Pork and products thereof
- Carrot and products thereof

Therefore the product does not contain any of the ingredients usually mentioned to be allergens according to Regulation (EU) No. 1169/2011 (as amended) and according to the LEDA- / ALBA-List (version 2.0, 2011). The analysis on above mentioned substances is not part of our quality monitoring.

Animal Testing

We confirm that this product never underwent experiments on animals. Furthermore such experiments are not planned.

Batch definition, size and number

A batch is defined as the amount of product manufactured and packaged in a certain time. The batch size can be up to 600 tons.

The principle applied to our 10-digit batch number is the following:

Number 1+2	Product group
Number 3+4	Year
Number 5+6+7+8+9+0	Sequential counter

California List of Chemicals, Proposition 65

During beneficiation no materials are used from which a contamination with compound mentioned in the Proposition 65 list could arise.

C.M.R classified substances

Please refer to our REACH Statement on the last page of this document.

Continuing guarantee

We confirm that each shipment or other delivery hereafter made by K+S KALI GmbH of above mentioned the product is hereby guaranteed, as of the date of such shipment or delivery to be in compliance with the current specifications of FCC, Food Chemical Codex.

Date of minimum durability

The above mentioned product has a date of minimum durability of 5 years.

Geographic origin

The above mentioned product is produced in Germany. The crude salt is mined from own underground deposits in Germany; these deposits consist of inorganic salts of geological origin.

GRAS Statement

The above mentioned product is an inorganic substance which possess the following status, in accordance with the 21 CFR, Part 184:

Magnesium sulfate, § 184.1443, § 184.1(b) (1): generally recognized as safe (GRAS)

GMO

In the production process of the above mentioned product we do not use any Genetically Modified Organisms (GMO). The above mentioned product is no GMO, it does not contain any GMO and has not been in contact with any GMO. Therefore the Regulations (EC) No. 1829/2003 (as amended) and No. 1830/2003 (as amended) are not applicable.

HACCP

A HACCP-System acc. Codex Alimentarius is in place, but not certified.

Ingredient list

Not applicable. The above mentioned product is not composed of different ingredients.

Irradiation/Ionisation

The above mentioned product is not subject to an irradiation and/or an ionisation.

Kosher and Halal Certificates

The above mentioned product is in line with Kosher and Halal requirements. The certificates are available on

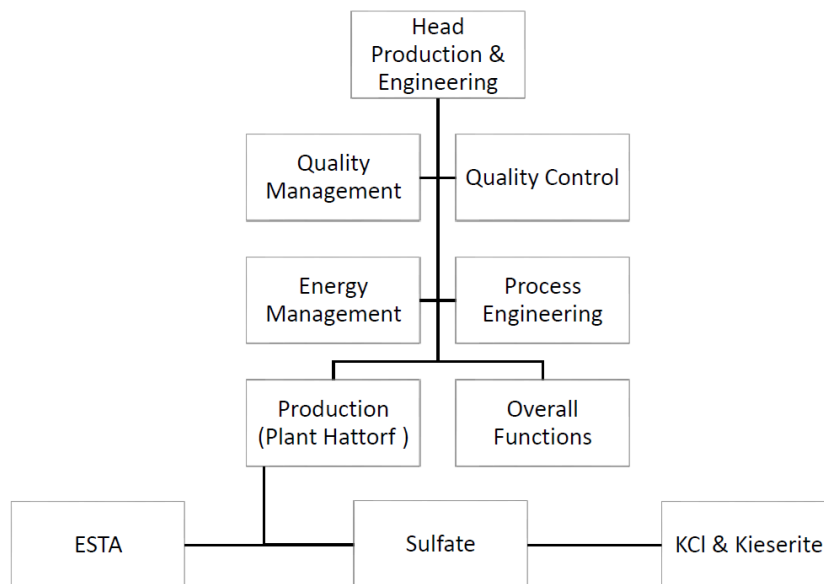
http://www.kali-gmbh.com/uken/healthcare_nutrition/products/bittersalz/bittersalzchemicallypure.html

Manufacturing site

K+S KALI GmbH, Werk Werra, Hattorf plant,
Hattorfer Straße 1, 36269 Philippsthal, Germany

<http://www.kali-gmbh.com/uken/company/locations/europe/hattorf.html>

Manufacturing site organisational chart

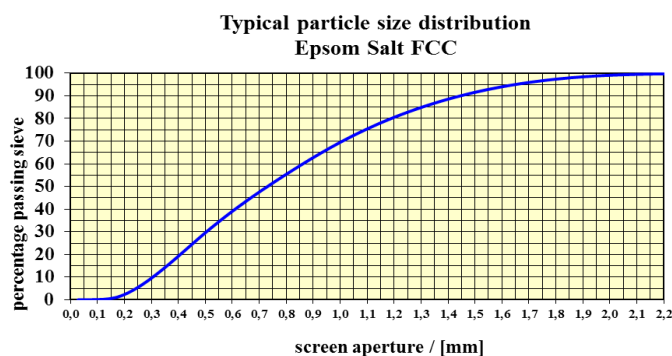


Microbiological contamination

The above mentioned product is an inorganic substance that is produced from raw materials, deriving from underground salt deposits of geological origin. Due to the closed beneficiation process and the origin of the raw material, bacteria, moulds, yeast, mycotoxins, aflatoxins are unlikely to be present in the product.

Nanoparticle declaration – Particle size distribution

According to the diagram shown below, significant quantities of nanoparticles are not to be expected.



NOP (National Organic Program)

For magnesium sulfate there is no further restriction according to § 205.605 Nonagricultural (nonorganic) substances allowed as ingredients in or on processed products labeled as "organic" or "made with organic (specified ingredients or food groups(s))."

Nutritional value

The above mentioned product is a completely inorganic substance and constitutionally does not include any carbohydrates, fats or proteins.

Parameter	Unit	Typical Value
Energy	kJ/100 g	0
Fat	g/100 g	0
Proteins	g/100 g	0
Carbohydrates	g/100 g	0
Sodium	mg/100 g	4
Calcium	mg/100 g	6
Potassium	g/100 g	0.02
Magnesium	g/100 g	9.9
Chloride	g/100 g	0.008
Vitamins		No vitamins added
Water	g/100 g	51

Origin – TSE/BSE and Materials of animal or plant origin

The above mentioned product is produced from raw materials, deriving from underground salt deposits of geological origin. The product is therefore of mineral origin. During manufacturing and storage no material of animal or plant origin is used so that contamination with these products/substances can be excluded.

Product suitability

The above mentioned product is a natural inorganic substance. It is suitable for Vegetarians, Ovo-lacto Vegetarians, Vegans, Coeliacs and people with lactose intolerance.

Residual solvents

During the manufacturing process of above mentioned product only water is used as solvent. Organic solvents are not applied. Due to the geological origin of the raw material and the lack of organic solvents in the manufacturing processes, residual solvents are not present. Therefore testing on the specified substances is not necessary and is not done.

Production process

Epsom Salt (magnesium sulphate heptahydrate, $MgSO_4 \times 7H_2O$), produced and marketed by K+S KALI GmbH, Germany, is manufactured according to the following process: Kieserite (magnesium sulphate monohydrate, $MgSO_4 \times H_2O$), obtained by processing of our own raw salt, from own underground salt deposits, is dissolved in hot water to give a clear solution.

The hot concentrated solution is cooled and a recrystallization process allows precipitation of highly pure magnesium sulphate heptahydrate. After dewatering the epsom salt is dried and packed in bags.

Quality control

The following analytical methods are used. They are in-house methods that are mostly more accurate than the official methods described in the Food Chemicals Codex. Nevertheless the latter are regarded as reference.

Parameter	Analytical method	Frequency
Assay	Calculated (100% - secondary ingredients)	each batch
Characters	Visual inspection	each batch
Solubility	Physico-chemical constant	not applicable
Identification	ICP	each batch
Lead	ICP	every six months
Loss on ignition	Gravimetrically (1. 105°C, 2h; 2. 450°C to constant weight)	each batch
Selenium	ICP	every six months

During the production process of the above mentioned product we do not use or intentionally add any of the following substances:

- Acrylamide
- Antibiotics, narcotic (antidoping) products, steroidal anabolic
- Antidegradant agent
- Asbestos
- BAC (benzalkonium chloride) and DDAC (didecyl dimethyl ammonium chloride)
- Biosolids or sludge
- Bisphenol A, Bisphenol F
- Butylparaben
- Cyanuric acid
- DEHP (diethylhexyl phthalate) and DINP (diisononyl phthalate) or any other phthalates
- Dioxins and PCBs (polychlorierte biphenyls)
- DMF (dimethylfumarat)
- Ethyl alcohol and Alcohol
- Ethylene oxide
- Genotoxic impurities
- Gluten
- Glutamates
- Hormones or hormone residues
- Latex
- Maleic acid
- Melamine
- Nitrosamine
- Nonylphenol Exthoxylates

- Palm oil
- Pesticides and herbicides
- Propylparaben
- Proteins
- PPS (polyethylene sulfide)
- Quaternary ammonium compounds
- Triclosan

K+S KALI GmbH

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To whom it may concern

Kassel, 31.08.2017

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REACH and CLP information

Herewith we would like to inform you that our products

Epsom Salt chemically pure, FCC

are, in terms of the European Regulation EC no. 1907/2006 (REACH), a substance, namely

Magnesium Sulfate Heptahydrate ($\text{MgSO}_4 \cdot 7 \text{H}_2\text{O}$), EINECS number 231-298-2.

As this substance is a naturally occurring mineral which is not chemically modified, it is exempt from the obligation to register according to Article 2 (7) and Annex V REACH.

Furthermore, it is not classified as dangerous according to European Regulation (EC) no. 1272/2008 (CLP). Therefore it is not necessary to mention the identified uses or to define any exposure scenarios. As a matter of course the applications as a pharmaceutical ingredient and as a food additive respectively are included in our safety data sheets. For these products we do not expect any future limitation by authorisation or by REACH restriction.

The products and their packaging materials contain no substances included on the candidate list according to Article 59 or in Annex XIV in a concentration above 0.1 % weight by weight (is current as of 10.07.2017).

For more detailed product information please refer to our homepage <http://www.kali-gmbh.com>.

Kind regards

K+S KALI GmbH
Leiter Principles Environment & Technology

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