



Potassium Chloride FCC, FAO, WHO, E 508 with anti-caking agent
Purity and properties correspond to the requirements of the a.m. regulations (see enclosed table for values/limits)

Version 8.0

Printing date 2015-04-03

Combined nomenclature: 31,042,090**Nature of Product:** white crystals

Chemical Analysis:	w	typical
• KCl, calculated with reference to the dried substance	%	99.1
• Loss on Drying (2 h, 105°C)	%	0.1
• Na	%	0.2
• Mg	mg/kg	100
• Ca	mg/kg	10
• SO ₄	mg/kg	100

Physical Properties:

- Solubility in water w (KCl) = 25.5 % 20 °C (68 °F)

Available grain sizes:

- 0.2 - 0.6 mm
- 0.2 - 0.4 mm
- 0.1 - 0.3 mm

Available premixes with anti-caking agents:

- 1 % magnesium hydroxide carbonate
- 0.5 % silicon dioxide

Date of minimum durability:

- 5 years after production

Storage:

Keep the closed original packaging at a dry and cool place (preferably 5 - 30 °C) without direct exposure to sunlight.

Packaging:

- FFS-PE bags 25 kg
- Big Bags

Application:

For the manufacture of dietetic salts, as salt substitute, finishing of carrageenan products and other food and food additive uses. Also for production of other potassium compounds for human consumption.

Our production is IFS 6 Food certified.

The data given above is based on our continuous quality monitoring system. They do not exempt the user from his obligation to make an incoming inspection of the delivered product. The data are for information purposes and do not constitute any guarantee. It is the responsibility of the user to determine the product's suitability for his intended use.

Limits for Potassium Chloride in the relevant regulations

Parameter	FCC	Codex Alimentarius	(EU) No. 231/2012 (E 508)
Assay, calculated with reference to the dried substance	≥ 99.0 % (≥ 98.0 % with additives)	≥ 99.0 %	≥ 99 %
Description	colorless, elongated, prismatic, or cubical crystals, or a white granular powder; stable in air; solution is neutral to litmus	colourless, elongated, prismatic, or cubical crystals, or white granular powder; odourless	colourless, elongated, prismatic or cubical crystals, or white granular powder; odourless
Solubility	one gram dissolves in 2.8 ml of water at 25°, and in about 2 ml of boiling water; with additives it may produce a cloudy solution or dissolve incompletely; insoluble in alcohol	freely soluble in water; insoluble in ethanol	freely soluble in water; insoluble in ethanol
Identification	a 1:20 solution gives positive tests for Potassium and for Chloride	passes tests for potassium and chloride	passes tests for potassium and chloride
Acidity or alkalinity	(without additives) no pink color with phenolphthalein, pink color after addition of 0.3 ml of 0.02 N NaOH	no pink color with phenolphthalein, pink color after addition of 0.3 ml of 0.02 N NaOH	-
Bromides	free from even a transient violet or a permanent orange color	free from even a transient violet or a permanent orange color	-
Iodides			
Arsenic	-	-	≤ 3 mg/kg
Lead	-	≤ 2 mg/kg	≤ 2 mg/kg
Mercury	-	-	≤ 1 mg/kg
Cadmium	-	-	≤ 1 mg/kg
Heavy metals	≤ 5 mg/kg	-	-
Sodium	a 1:20 solution, tested on a platinum wire, does not impart a pronounced yellow color to a nonluminous flame (≤ 0.5 % with additives)	does not impart an intense yellow colour to a non-luminous flame	does not impart an intense yellow color to a non-luminous flame
Loss on drying	≤ 1.0 %	≤ 1 %	≤ 1 %

-: not specified



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

Morton Salt, Inc.
123 N Wacker Drive
Chicago, IL 60606

Kassel, 25.08.2016 23.08.2016

Massama Kambia
Technical Advisory Services,
Quality and Regulatory Affairs
Health Care and Nutrition
Tel +49 (0)561 9301-1186
Fax +49 (0)561 9301-46627
massama.kambia@k-plus-s.com

kmSTDStatement_KaliSel_Morton V02b

Product General Information

Product Name: **KaliSel**

Potassium Chloride FCC, FAO, WHO, E 508 with max. 1% magnesium hydroxide carbonate

Chemical Name: Potassium chloride, magnesium hydroxide carbonate

FDA Registration number: 19626497208

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

The above mentioned product is composed of potassium chloride, which is treated with an anti-caking agent in order to avoid caking. Potassium Chloride is produced from natural, inorganic minerals whereas the anti-caking agent is on synthetic origin.

During manufacturing and storage of KaliSel, no material of animal or plant origin is used so that contamination with these products/substances can be omitted.

Geographic origin

The above mentioned product is produced in Germany from crude salt that stems from German potash mines. The added anti-caking agent is also produced in Germany.

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.

K+S KALI GmbH · Bertha-von-Suttner-Straße 7 · 34131 Kassel, Germany · Phone: +49 561 9301-0 · Fax: +49 561 9301-1753 · www.kali-gmbh.com

Bank account: Deutsche Bank AG, bank code 520 700 12, account no. 25 152 000

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, Dr. Ralph Jäger

Company seat: Kassel · Registered in Kassel (HRB 7452)

A K+S Group Company

Continuing guarantee

We confirm that each shipment or other delivery hereafter made by K+S KALI GmbH to Morton of above mentioned product is hereby guaranteed, as of the date of such shipment or delivery to be in compliance with the current specifications of FCC, Codex Alimentarius, (EU) No 231/2012) and applicable relevant German, European and U.S. regulations for food additives.

Furthermore, please note that the product comprising each shipment or other delivery is hereby guaranteed, as of the date of such shipment or delivery, to be, on such date, not adulterated or misbranded within the meaning of the Federal Food, Drug, and Cosmetic Act, and not a product which may not, under the provisions of section 404 of the act, be introduced into interstate commerce.

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 could it be cross-contaminated by any of the following:

- 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

Therefore the product does not contain any of the ingredients usually mentioned to be allergens according to EU-Directive 2000/13/EC and subsequent amendments and according to the ALBA-List. The analysis on above mentioned substances is not part of our quality monitoring.

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.

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/uk/en/healthcare_nutrition/products/kcl/kcl993.html

Irradiation/Ionisation

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

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, the heat treatment during drying and the origin of the raw material, bacteria, moulds, yeast, mycotoxins, aflatoxins and dioxins are unlikely to be present in the product.

Nutritional value

The above mentioned product is a mixture of two inorganic substances and constitutionally does not include any carbohydrates, fats or proteins. Above mentioned product has therefore no nutritional value.

Parameter	Unit	Typical value
Energy	kJ/100 g	0
Fat	g/100 g	0
Saturated fat	g/100 g	0
Proteins	g/100 g	0
Carbohydrates	g/100 g	0
Sugar	g/100 g	0
Fibre	g/100 g	0
Sodium	mg/100 g	200
Calcium	mg/100 g	4.4
Potassium	g/100 g	51.5
Magnesium	g/100 g	0.22
Chloride	g/100 g	46.8
Vitamins		No vitamins added
Moisture (loss on drying)	g/100 g	0.1
Ash	g/100 g	99.6
Water	g/100 g	0.4

California List of Chemicals, Proposition 65

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

C.M.R. classified substances

The above mentioned product does not contain any substances which are included in either Dangerous Substances Directive (67/548/EC) or Restriction On The Marketing And Use Of Certain Dangerous Substances And Preparations (76/769/EC) classified as Carcinogenic, Mutagenic or Toxic to Reproduction (CMR).

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 unlikely to be present. Therefore testing on the specified substances is not necessary and is not done.

Generally Recognized as Safe (GRAS)

Potassium chloride is listed as GRAS (§ 184.1622 and § 184.1(b) (1))
Magnesium hydroxide carbonate: listed as GRAS (§ 184.1425 and § 184.1(b) (1)).
Both are therefore food grade and suitable for human consumption.

NOP (National Organic Program)

For Potassium chloride 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))."

For Magnesium hydroxide carbonate: not listed as such. But in FCC this product is called magnesium carbonate, which is listed with the restriction *for use only in agricultural products labeled "made with organic (specified ingredients or food group(s))", prohibited in agricultural products labeled "organic."*

HACCP

A certified HACCP system is in place for the manufacturing of the above mentioned product. Details on HACCP are not forwarded. Please note that a IFS (GFSI recognised) certificate is available for the product and be downloaded at

http://www.kali-gmbh.com/uken/healthcare_nutrition/products/kcl/kcl993.html

Ingredient list

Potassium Chloride FCC, FAO, WHO, E 508	99.2%
Magnesium hydroxide carbonate	0.8%

Plant water source / Sewer / Sludge

For the manufacturing of the above mentioned product, process and potable water are used. Both are checked regularly according to the requirements of the German Drinking Water Ordinance. The potable water is sourced from municipal water supply.

Furthermore sludge from the sewer system is neither used as raw material nor is there any risk of contamination with such compounds.

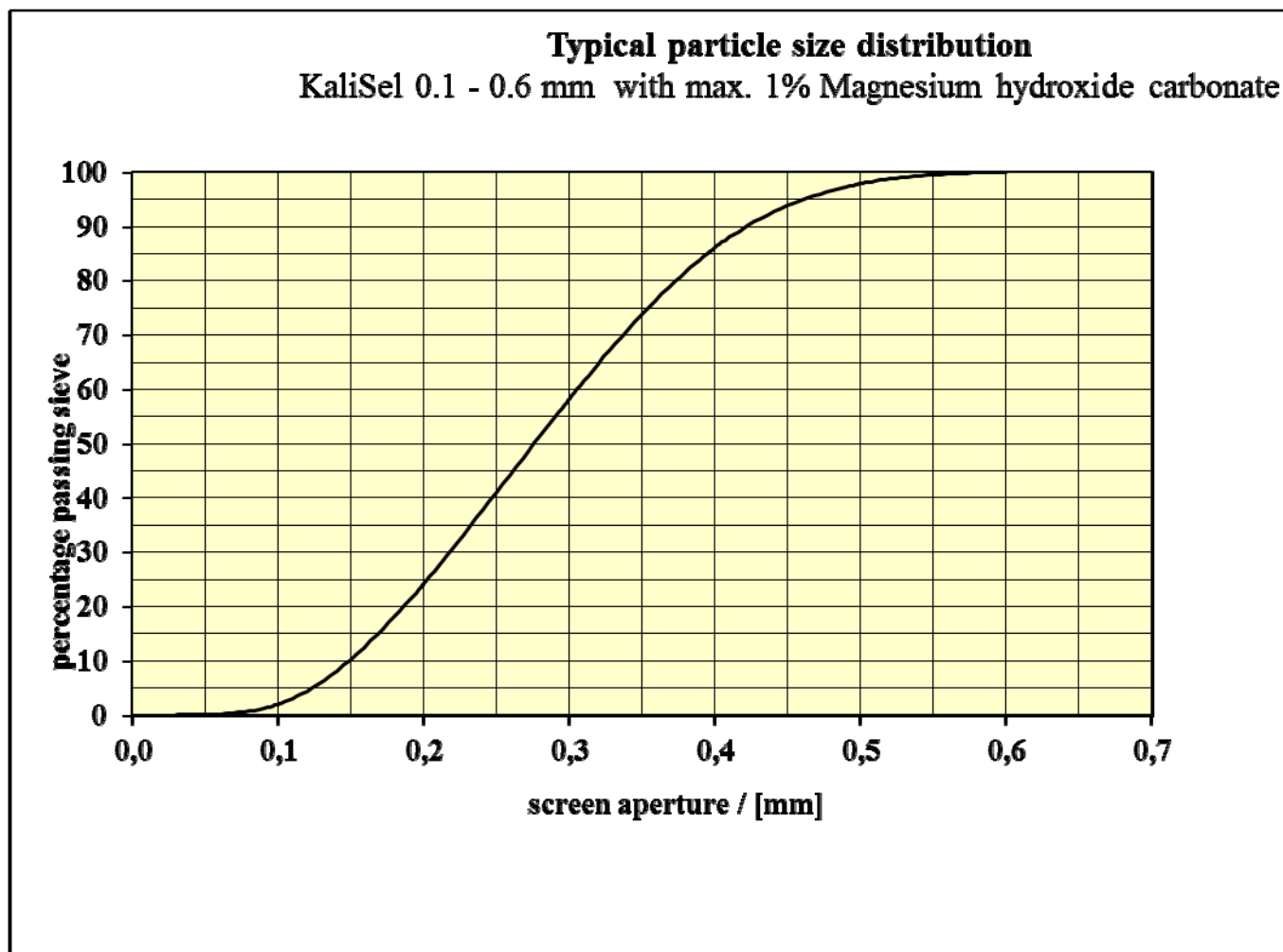
CHANGE CONTROL

We herewith confirm that a formal change control system has been implemented. A notification will be automatically sent to our direct customers, before implementation of modification that could affect the specification of the relevant product.

Particle size

Guarantee on grain sizes are not given for KaliSel.

The following particle size distribution and typical values may therefore have only an informative character.



<i>U.S. Mesh</i>	<i>Mesh in millimeter</i>	<i>Typical values [%]</i>
+ (on) 20	0.841	0
- (through) 35	0.5	95
+ (on) 120	0.125	94
35-70	0.210 - 0.5	70
30 - 70	0.210 - 0.6	76
30 - 140	0.1 - 0.6	98

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

- Melamine
- Gluten
- Glutamates
- Nitrosamine
- Palm oil
- Maleic acid
- Latex
- Cyanuric acid
- BAC and DDAC
- Quaternary ammonium compounds
- Bisphenol A, Bisphenol F
- Polyethylene sulfide (PPS)
- Dimethylfumarat (DMF)
- Asbestos
- DEHP (diethylhexyl phthalate) and DINP (diisononyl phthalate) or any other phthalates
- Acrylamide
- Ethyl alcohol and Alcohol
- Dioxins and PCBs
- Ethylene Oxide
- Acrylamide
- Pesticides and herbicides
- Hormones or hormone residues
- Biosolids or sludge
- Antibiotics, narcotic products, steroidal anabolic
- Compounds mentioned on the WADA Prohibited List
- N-Methylphenethylamine
- Enzymes
- Partially hydrogenated oils (PHOs)
- Cumin
- Paprika

K+S KALI GmbH

(This document is valid without signature.)