Heygates Flour Mills
Product Specification

Product Name	Customer Name	Cust Ref
K1 - CHEATA	Bradleys Foods	HAR150

Description of Flour

A very fine white flour that has tendency to clump together The flour is heat treated and is designed for use in cakes, sponges and muffins.

Flour Analysis

2018 / 2019 Harvest

Method	Target	Range		Method
Protein Test %	8.0	7.0	9.0	HEY 014
Moisture Test %	11.0	8.0	13.5	HEY 014
*L**	90.5	91	91	HEY 25

*Uncontrolled Copy

*The product analysis data is obtained using historical data and could be subject to change at harvest

Stat Adds = Calcium Carbonate (0.235%); Iron (0.00165%); Nicotinamide (0.0016%); Thiamine (0.00024%)

Shelf Life 12 months

Storage The flour should be stored in cool dry conditions away from direct sunlight. The storage area should allow good air circulation and be free from any pest infestation.

FiR Ingredient Declaration Wheat Flour (WHEAT flour, Calcium Carbonate (E170), Iron, Nicotinamide (Vit B3), Thiamine Hydrochloride (Vit B1))

Prepared By Jill Buckingham

Signature

Issue Date 20-Jun-19 Spec ID K1 Revision v014 Res Ref 0

HQ Address	
Add 1	Heygates Ltd
Add 2	Bugbrooke Flour Mills
Add 3	Bugbrooke
Add 4	Northants NN7 3QH
Tel No.	01604 830381
Fax No.	01604 831865

Mill of Manufacture Address	
Add 1	Heygates Ltd
Add 2	Bugbrooke Flour Mills
Add 3	Bugbrooke
Add 4	Northants NN7 3QH
Tel No.	01604 830 381
Fax No.	01604 831865

Contact Names		Contact Tel No.s
Mill Manager	Mr Paul Thomason	01604 830 381
Sales & Techr	Laurie Pearson	01604 830381
Quality Mana	David Bailey	01604 830381
Out of Hrs Co	24hr Security	01604 830381

3rd Party Accreditation

BRC	Yes	BRC Exp Date	May 19
BRC Scope	Flour and wheat derivatives and heat treated flour for human consumption produced and packed at the Bugbrooke site.		

Food Safety Controls - Critical Control Points

Final Sieve Size	1mm			Frequency of Inspection	Weekly		
Frequency of overtail Checks	Every batch			**The flour will be free from foreign bodies**			
Blow Line Metal Detection	Fe	1.5mm	Nfe	1.5mm	SS	3mm	
Bag Metal Detection	Fe	4.0mm	Nfe	4.0mm	SS	4.0mm	

Packaging

Size of bag	16Kg	Bag Dim.	320x135x720		
				Pallet Configuration	
Primary Packa	Paper sack	Weight	2x80g Ply	No. per layer	5
Secondary Packaging	Spin wrap			No. layers	13

Microbiological limits	Mean Figs from industry survey		Mean Figs from industry survey
Aerobic Total Viable Count	7749 CFU/g	Presumptive Bacillus cereus	3.79
Yeasts & Moulds	2012 CFU/g	Listeria spp (count)	<10
Presumptive Coliforms MPN	1.41 MPN	Salmonella	Abs in 25g
Presumptive Escherichia coli MPN	0.11 MPN	Frequency of tests	Post harvest

Micro Analy

We consider the product to be low risk microbiologically. The product should pass through a validated heat treating process i.e. cooking before final consumption.

Mycotoxin / Pesticide Residue Tests	All wheat and wheat derivatives meet current EU legislation
Test	**Frequency of Test**
Ochratoxin A; DONS; ZONS	Annually at Harvest then risk assessed basis following this.
Pesticide Residue	HGCA Project — Typical results available on request

Food Allergen Information Jan-13

The following list of known allergens is based on the statutory instrument 2008: No.1188. the Food labelling (Declaration of

	Q1	Q2	Q3
Cereals containing gluten	**YES**	**YES**	N/A
Crustaceans	NO	NO	NO
Eggs	NO	NO	NO
Fish	NO	NO	NO
Peanuts	NO	NO	NO
Soyabeans	NO	NO	**YES**
Milk	NO	NO	NO
Nuts (i.e. almonds, hazelnuts)	NO	NO	NO
Celery	NO	NO	NO
Mustard	NO	NO	NO
Sesame	NO	NO	NO
Sulphur dioxide & sulph^ >10mg/l	NO	NO	NO
Lupin	NO	NO	NO
Molluscs	NO	NO	NO

Q1: Is the allergen declared on the packaging label

Q2: Is this allergen used within the same production facility

Q3: Is there a risk of adventitious cross contamination

Adventitious cross contamination can occur especially when handling foreign wheat. Transportation (vessels, trains, road haulage), port storage and conveying systems could be handled with other combinable crops. Measures are in place to reduce any adventitious contamination within the supply chain and Heygates employ the services of a port superintendent to check previous loads and to take samples of incoming wheat. The wheat cleaning screens room should extract seeds and grains based on density and size.

Nutritional Information (per 100g)

Source - McCance & Widdowsons

Water (g)	11.0	*	Magnesium (mg)	23.0
Total Nitrogen (g)	1.6		Phosphorus (mg)	114.0
Protein (g)	8.0	*	Iron (mg)	1.9
Fat (g)	1.4		Copper (mg)	0.2
Av Carbohydrate (g)	80.9		Zinc (mg)	0.7
Energy (kcal)	348.0	*	Chloride (mg)	143.0
Energy (KJ)	1482.2	*	Manganese (mg)	23.0
Starch (g)	80.3		Selenium (ug)	3.0
Total Sugars (g)	0.6		Iodine (ug)	TR
Gluc (g)	TR		Retinol (ug)	0.0
Fruct (g)	TR		Carotine (ug)	0.0
Sucr (g)	0.5		Vitamin D (ug)	0.0
Saturates (g)	0.4		Vitamin E (mg)	0.6
Malt (g)	0.1		Thiamine B1 (mg)	0.3
Lact (g)	0.0		Riboflavin B2 (g)	0.1
Dietary Fibre (g)	3.4		Niacin (mg)	1.7
Satd (g)	0.4		Tryptophan/60 (mg)	2.0
Mono-unsatd	0.2		Vitamin B6 (mg)	0.2
Poly-unsatd (g)	0.2		Vitamin (B12 (ug)	0.0
Trans (g)	TR		Folates (ug)	16.0
Cholest-erol (mg)	0.0		Pantothenate (mg)	0.4
Sodium (mg)	2.0		Biotin (ug)	2.0
Potassium (mg)	175.0		Vit C (mg)	0.0
Calcium (mg)	96.0	* = Calculated values		

Suitable For

Ovo-lacto vegetarians	Yes
Vegans	Yes
Coeliacs	**No**
Kosher approved	No
Halal approved	No

Pest Control

No. of routine visits	52
No. of technical insp	4

Scope of pest Control:
Rodent & SPI plus 24hr call out

Contractor:
Check Pest Control, Reading, Berkshire.

Wheat can be sourced from:	UK, Poland, Germany, USA, Canada, France	Calcium: UK Vit B3: India / China	Iron: USA Vit B1: China

UK= United Kingdom; GER= Germany; CAN= Canada; USA = North America; FR= France

Genetic Modification

At this time no genetically modified wheat has been authorised in the EU for commercial cultivation, nor for import into the EU. NABIM (The National Association of British and Irish Millers) continue to monitor the developments in the areas of labelling and patenting of agricultural food products derived from GMO's and keep its members informed of any developments. Regulations (EC) 1139/98 and 49/2000, and the new regulations (EC) 1829/2003 and 1830/2003 on the compulsory labelling in foodstuffs of products derived from GMO's, do not apply and additional specific labelling is not required.

Nut Policy

Heygates Ltd do not process any nut or seed products at any of our flour production facilities. Flour is produced in a sealed system and conveyed by means of an enclosed pneumatic pipe to bulk storage where it can either be discharged into dedicated bulk flour tankers or packed into flour sacks.

COSHH

1: Product: K1

Details below are for wheat flour - the worse case scenario

2: Composition/Information on Ingredients

Wheat Flour is produced by milling cleaned wheat grain or endosperm of cleaned wheat grain.
Flour is mainly used in the manufacture of bread, biscuits, confectionery, other foodstuffs and for various industrial purposes.

3: Hazards Identification

This product is not classified as hazardous to health according to EC directive.

	8hr TWA	STEL
MEL(maximum exposure limit)	10mg/m3	30mg/m3

In normal use wheat flour does not present a serious health risk and ingestion has no adverse effects. To comply with the Control of Substances Hazardous to Health Regulations and the assigned MEL, and for general health reasons outlined below, it is necessary to reduce so far as reasonably practicable personal exposure to any dust through enclosure, ventilation and the provision and use of personal protective equipment.

4: First Aid Measures

Inhalation: Flour dust may cause asthmatic reactions in a small proportion of susceptible employees. Remove affected person from area of exposure preferably into fresh air. Anyone who has asthmatic symptoms from an exposure to dust should seek medical advice. The symptoms normally disappear if the sufferer avoids further exposure.
Eyes: Flour dust may cause discomfort and the eyes should be washed with running water. Medical advice should be sought if the discomfort persists.
Skin: Flour can have a drying effect on the skin. For hygiene reasons it should be cleaned from broken skin to reduce risk of infection. There should be no adverse response from exposure to skin. It is only very rarely, if ever, the cause of dermatitis (see 8. Exposure and Controls below).

5: Fire Fighting Measures

Extinguish with Water(Red) or Foam (Cream).
Extinguish with Powder(Blue) should there be an electrical risk or electrical fire, when water and foam should not be used.
Extinguish with Foam(Cream) or Powder if burning liquids are involved.
Use of CO2 (Black), particularly large trolley-mounted extinguishers, may incur risk of generating an ignitable dust cloud.

6: Accidental Releases

Flour should be swept up, do not allow to enter drainage system, do not hose down.
Vacuum cleaners must be spark free and earthed. Vacuuming is the preferred method of cleaning. Brushes should preferably be of the type with coloured nylon bristles.
Compressed air is not suitable for cleaning jobs. It is dangerous and it spreads the problem to areas which are harder to clean and possibly into unexpected sources of ignition.

7: Handling and Storage

In bulk, flour should be stored at ambient temperatures in dry bins. Bagged flour should be stored in cool, dry conditions. Flour is usually supplied either by bulk tanker or in paper bags.
Static Electricity: The pneumatic intake of flour from bulk tankers can give rise to static electricity. Accordingly it is essential for blowlines to be earthed; suitable earthing points must be provided at the discharge point.
Manual Handling: All manual handling operations, including those involving flour bags, should be the subject of risk assessment appropriate to the environment and the physical characteristics of the handlers.

8: Exposure and Controls

Dust formation should be minimised during handling to prevent inhalation and skin contact. Overalls and dust respirators are recommended when handling loose materials. Spillages should be removed without delay to maintain hygiene standards and to minimise the level of dust in the atmosphere. Vacuum cleaning should be used wherever possible. It is unusual for contact with clean flour dust to cause dermatitis however high standards of personal hygiene should be maintained to avoid the possibility of dermatitis or product contamination.

9: Physical and Chemical Properties

White free flowing powder.
Particle Size
Will vary with flour type. E.g., in white flour a large majority of particles will be smaller than 150 microns, 50% of particles being smaller than 50 microns. For fine cake flours, about 50% of particles will be below 25 microns. In wholemeal flour, some particles will be greater than 300 microns.
Specific Heat
0.42 J/gm C.
Explosive Concentrations
Above 50g/m2. (Upper explosive limit concentrations are not well defined for combustible dusts.)
Ignition Temperatures
A cloud of flour in air can be ignited by surfaces at temperatures of about 400OC. Layers of flour on a hot surface can smoulder at around 200OC, leading to flame and ignition.
Kst Values
Comprehensive tests on flours indicate a range between 74 and 120 bar m/s, depending on the flour type, particle size and moisture content. (The limit for the least severe class of explosible dusts, St1, is 200 bar m/s and this figure is often used for determining suitable vent size.)
Density
Usually between 450 and 560 kg/m3.

10. Fire and Dust Explosion Hazards

Like most organic materials, flour dust is flammable. Although not especially combustible, in certain conditions flour can form dust clouds which, if ignited, can lead to a dust explosion. The following precautions should therefore be taken:
• Adequate extraction facilities should be provided in all areas subject to dust, • Care should be taken to prevent the formation of dust clouds in storage and conveying plant, • Potential sources of ignition should be avoided, • Silos and appropriate equipment, including blowlines, should be earthed to prevent ignition by electrostatic discharge, • Adequate explosion prevention or protection should be fitted to silos and other appropriate equipment, • Smoking must be prohibited near storage and handling areas, • Build-up of dust on beams and ledges – representing a potential dust cloud if dislodged - should be prevented, • Electrical equipment should be of the type suitable for flammable dusts
Further advice on this matter is contained in the technical data below and in "The Prevention of Dust Explosions in Flour Mills and Bulk Flour Containers", available from NABIM.

11. Toxicological Information

This product is non-toxic.
Ingestion: Safe for human ingestion.
Inhalation: Repeated exposure may cause sensitisation and asthma (see 8. Exposure and control)
Eye: May cause discomfort as a foreign body/matter.
Skin: Slight drying of skin. May cause dermatitis in rare cases

12. Ecological Information

None available at this time

13. Disposal Considerations

Dispose of according to national and local regulations.

14. Transport Considerations

This product is not classified as dangerous goods.

15. Regulatory Information

The product is produced so as to comply with the prevailing requirements of the Food Safety Act and the Bread and Flour Regulations.
EH 40 Risk Phrases: none
EH 40 Safety Phases: none

16. Other Information

Under CoSHH Regulations the user is under a legal obligation to carry out suitable and sufficient assessment of the health and safety risks which this material may present.
Reference should be made to:
Occupational Exposure Limits EH40/current year
Preventing Asthma at Work L55
Handling of Combustible Dusts HSE 103

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of issue below. The information is for guidance in safe handling, use, storage, transportation, disposal and release and is not in itself a warranty or quality specification. The information relates only to the products identified. This Material Safety Data Sheet may not be valid for such product used in combination with other substances or processes which must be assessed separately.

HACCP - Process Flow Diagram