

Heygates Ltd

Flour Specification



Product Name	Customer Name	Cust Ref
N.P. SELF RAISING	THOMAS RIDLEY FOODSERVICE	RID120

Description Of Flour

A free flowing off white powder that is free from hard lumps and foreign matter. The flour shall be odourless and should have a stringent taste. The product is suitable for the production of cakes, scones, biscuits and some pastries

2022 Harvest

Flour Analysis

Method	Range	Method
NIR PROTEIN (Dumas N x 5.7 as is)	9.0 10.6	HEY 014
NIR MOISTURE (90 MINS @130C)	Max 15.0	HEY 014
CARBON DIOXIDE	0.6 0.8	HEY CO2



*Uncontrolled Copy

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

Shelf Life & Storage	273 Days	FLOUR IS A RAW INGREDIENT AND MUST BE COOKED OR BAKED BEFORE EATING
	Flour should be stored in cool, well ventilated and pest-free areas away from direct sunlight.	
Ingredients Stat Adds	We reserve the right to source wheat from the global market to ensure consistent quality Wheat, Sodium Carbonates (E500) Calcium Phosphates (E341) Calcium Carbonate (E170), Iron, Niacin, Thiamine	Countries of origin UK, GER, POL, FRA, SWE, CAN, USA, MEX FR, USA, IND, CHN, SWE
Compliance	EC No. 1925/2006 & EC1169/2011 + UK Bread & Flour Regulations 1998	
Issue Date	Spec ID 2SDTL023 TL023 Version 27/06/2022	Prepared By DH - Dave Hughes

This document is a strictly confidential communication to the recipient and may not be reproduced or circulated without written consent from a member of the Heygates Ltd Technical Department. If you are not the intended recipient, you may not disclose or use the information in this document in any way.

HQ Address			The below sites are approved to supply
Add 1	Heygates Ltd		Flour name: <input type="text" value="N.P. SELF RAISING"/>
Add 2	Bugbrooke Flour Mills		To: <input type="text" value="THOMAS RIDLEY FOODSE"/>
Add 3	Bugbrooke		
Add 4	Northants NN7 3QH		
Sales & Technical	Mervin Poole		
Quality Manager	David Bailey		
Export Declarations			
Heygates EORI No.	<input type="text" value="GB119291076"/>		

Approved Sites For The Supply Of This Product			
	T		B
Add 1	Heygates Ltd, Tring	Add 1	Heygates Ltd, Bugbrooke
Add 2	New Mill	Add 2	Bugbrooke Flour Mills
Add 3	Tring	Add 3	Bugbrooke
Add 4	Herts HP23 4JN	Add 4	Northants NN7 3QH
Tel No.	01442 823311	Tel No.	01604 830381
Fax No.	01442 890283	Fax No.	01604 831865
Grade	A	Grade	A
Scope	The milling of white, wholemeal and brown wheat flours and co-products, for retail (1.5kg flour bags up to 16kg sacks) and industrial (sack-packed and bulk tanker) supply. Cert No. ESP 21707.	Scope	The milling of wheat flours including heat treated flour, blended bread mixes and other wheat derived products, including co-products, for industrial supply (sack packed and bulk tanker). Cert No. ESP 23255.
BRC validation		Site Code	BRC validation
	1220543		(pls click icon) 
			Site Code
			1127834

Food Safety Controls - Critical Control Points	
Sieve Size	<input type="text" value="1mm"/>
Blow Line Metal Detection	<input type="text" value="1.0Fe, 1.0Nfe, 2.0SS"/>
Bag Metal Detection	<input type="text" value="2.5Fe, 2.5Nfe, 3.0SS"/>
The flour will be free from foreign bodies	

Packaging			
Size of bag	<input type="text" value="16Kg"/>	Bag Dim.	<input type="text" value="320x135x720"/>
		Thread	<input type="text" value="White"/>
Weight	<input type="text" value="120 gms"/>	Secondary Packaging	<input type="text" value="Spin wrap"/>
		Primary Packaging	<input type="text" value="Brown Paper Sack"/>
		Pallet Configuration	<input type="text" value="5"/>
		No. per layer	<input type="text" value="13"/>
		No. layers	<input type="text" value="5"/>
All flour should be sieved prior to use. Heygates Ltd can not be held liable for any product packaging that ends in the the finished product when presented to the end user as a consequence of the rip and tip process			

Microbiological	Indicative levels from industry survey	
Aerobic Total Viable Count (cfu/g)	<input type="text" value=">300,000"/>	Presumptive Bacillus cereus (cfu/g)
Yeasts & Moulds (cfug)	<input type="text" value="17,600"/>	Listeria spp (count)
Presumptive Coliforms (cfu/g)	<input type="text" value=">1,500"/>	Salmonella
Presumptive Escherichia coli (cfu/g)	<input type="text" value="30"/>	Frequency of tests
		<input type="text" value="Post harvest"/>
<i>It is possible albeit unlikely that levels can exceed those listed above</i>		
Micro Analysis	We consider the product stable and to be low risk microbiologically. However, 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	
Wheat	Ochratoxin A; DONs; ZONS	Frequency of Test
	Pesticide Residue	Annually at harvest followed by risk assessment.
		HGCA Project
		Typical results available on request

Food Allergen Information			
The following list of known allergens is based on the statutory instrument 2008: No.1188. the Food labelling (Declaration of Allergens)(England) regulations 2008 - Amended March 2011			
	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^ >10	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

Produced without the addition of soya, in a mill which does not process soya, but within a supply chain which handles soya.

Nutritional Information (per 100g)		Typical			
Water (g)		11.3		Magnesium (mg)	25.0
Total Nitrogen (g)		1.6		Phosphorus (mg)	463.0
Protein (g)		8.9		Iron (mg)	1.7
Fat (g)		1.5		Copper (mg)	0.1
Av Carbohydrate (g)		79.6		Zinc (mg)	0.8
Energy (kcal)		348.0		Chloride (mg)	108.0
Energy (KJ)		1480.0		Manganese (mg)	0.8
Starch (g)		79.0		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	NSP (g) 3.1	Riboflavin B2 (g)	0.1
Fibre AOAC (g)		4.0		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)		0.4		Vitamin (B12 (ug)	0.0
Trans (g)		TR		Folates (ug)	18.0
Cholest-erol (mg)		0.0		Pantothenate (mg)	0.4
Sodium (mg)		342.0		Biotin (ug)	2.0
Potassium (mg)		190.0		Vit C (mg)	0.0
Calcium (mg)		280.0			

Source - McCance & Widdowsons 7th Edition
<https://www.gov.uk/government/publications/composition-of-foods-integrated-dataset-confid>

Suitable For	Pest Control
Vegetarian	No. of routine visits 26
Vegans	No. of technical insp 4
Coeliacs	Scope of pest Control:
Kosher	Rodents & moth plus 24hr call out
Halal	Contractor: Check Pest Control, Reading, Berkshire.

Heygates Food Safety Policies

Genetic Modification

At this time no genetically modified wheat has been authorised in the EU for commercial cultivation, nor for import into the EU. UK Flour Millers (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: N.P. SELF RAISING

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.

	8 hr TWA	STEL
MEL(maximum exposure limit)	10 mg/m ³	30 mg/m ³

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 μm , 50% of particles being smaller than 50 μm . For fine cake flours, about 50% of particles will be below 25 μm . In wholemeal flour, some particles will be greater than 300 μm .
Specific Heat
0.42 J/gm C.
Explosive Concentrations
Above 50 g/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 400 °C. Layers of flour on a hot surface can smoulder at around 200 °C, 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 UK Flour Millers.

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

Process	Status	Checks / Monitoring
Wheat Intake	PRE REQ - pesticide, moisture, taint & infestation	All wheat is sampled and positively released
Wheat Storage		
Wheat Conditioning	CP - micro hazard from mains water	Water tested for micro content every year
Wheat Cleaning		
Milling		Daily detector tests and rejects sampled
Metal Detector	CCP - metal contamination	1.0Fe, 1.0Nfe, 2.0SS
Final Sieve	CCP - foreign body contamination	Sieve integrity and overtail checks
Storage		
Packing		2 hrly bag metal detector checks
Bag Metal Dec	CCP - metal contamination	2.5Fe, 2.5Nfe, 3.0SS
Palletisation & Despatch		
Bulk Outloading		
Despatch	CP - Tanker hygiene	Tanker cleaning schedule