

기안용지

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보존년한			
보조기관	보령경찰청	전결	
기안책임자	이종진 (경위 9)		
경유	등대문구청장	발	동
수신	위생과장	신	장
참조	결의서		
계류	회시		
<p>1. 위생 1436-960호(장.7.29) 위생 1436-1092호(장.8.2)와 관련임</p> <p>2. 위대호로 결의한 내용을 검토한바 적용 선결으로 처리되어야 함으로 사로되니 양의 함고 함스 끝</p>			
			경서
			판인
			발승

동 대 문 구

위생1436-

10/2

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78. 8. 25.

수신 서울특별시청

참조 보건행정과장

제목 질의에 따른 보안 서류 제출

1. 보행1436-1047 (78.8.10) 호와 관련입니다.

2. 위호에 대한 보안서류를 별첨과 같이 정칙 보고합니다.

첨부 소명 보안 자료 1 부 끝.

서울특별시		경계			
접수 1978. 8. 28		일			
1978. 8. 28		동 40710		문 구	
1978. 8. 25		1978. 8. 25		1978. 8. 25	

138

고 벽 인삼 제 품 주 식 회 사

고 제 : 371-224 78. 8. 23
 수 신 : 동 대 문 구 청 장
 참 조 : 위 생 과 장
 계 목 : 위 생 1436-960의 집외에 대한 보완. (법정: 관개문언 4회)

1) 원질품명

Guar Bean Locust Bean

2) 제조공정

콩껍질, 씨부분을 분리제거한후 미립 분말로 한것임.

3) 성분배합 (천연물질의 구성요소)

Guar Gum		Locust Bean Gum
가 락 토 만 남	80-85%	80-85%
수 분	10-14%	10-13%
당 백 질	3-5%	5%
섬 유 소	1-2%	1%
회 분	1.5-1.0%	1%
지 방	0.4-1.0%	2%

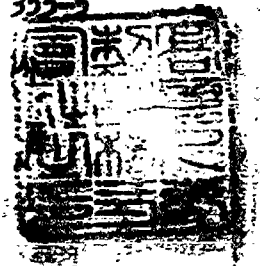


4) 용도

면류의 안정제, 병과류의 안정제, 일반식품의 증점제.

-끝-

서울특별시 동대문구 상봉동 355-5
 고 벽 인삼 제 품 주 식 회 사
 대 표 이 사 홍 사



GALACTOMANNANS IN COMMON

Both guar gum and locust bean gum are galactomannans. The next section in this brochure discusses the differences between the two gums, but illustrates the similarity in the chemical structures. It is important to recognize the many other similarities which help to understand why these gums are used so widely in foods.

Safety

Both materials have been used in foods for centuries. The locust or carob bean is better known in history as St. John's Bread. The guar bean in its succulent stage before ripening and drying has long been used as food for both humans and animals in India and Pakistan. Guar and locust bean gums are *natural* products. Safety has also been confirmed by extensive tests with laboratory animals including rats, dogs and monkeys.

Compatibility

Both gums are non-ionic and therefore are compatible with all food materials independent of acidity or alkalinity. Variations in pH are no problem. The gums remain soluble under all conditions of use in foods and do not precipitate or separate. (Galactomannans are insoluble in alcohol, however.) In addition there is complete compatibility and frequent use together with other water soluble polymers such as alginates, pectin, xanthan, carrageenan, carboxymethylcellulose and starches.

Granulation

Granulation is an important characteristic of SUPERCOL gums since the suitability in application depends to a large extent on the physical form. Products are tailor-made to specific particle size: coarse granulations ensure rapid, easy dispersion while finer products are ideal for fast hydration. To some extent, granulations affect the "feel" of the final sols.

Mixing

Liquid: If the gum is to be added directly to an aqueous liquid it is most important to have good agitation. Mix at speed sufficient to produce a vortex, and add the gum into the vortex. The slurry method can also be used by quickly mixing the gum in cold water and then adding it immediately to other items in the formula.

Dry Premix: When other dry ingredients are also to be added to the liquid, first make a dry mix with the gum and then add to the liquid. Sugar for example is excellent for this purpose.

Dry Products: These gums are free-flowing and can be mixed in any sequence with dry materials. Grinding is not necessary unless required by other ingredients.

The dry gums in the original packages will keep indefinitely without lumping in cool clean and dry storage areas. They are not deliquescent or efflorescent. The gums do not attract infestation.

Storage

As mentioned in the introduction, Supercol gums function by changing the viscosity of the water component of foods and by stabilizing the food through control of water mobility. Both gums are very efficient in producing high viscosity in the static condition.

General Function

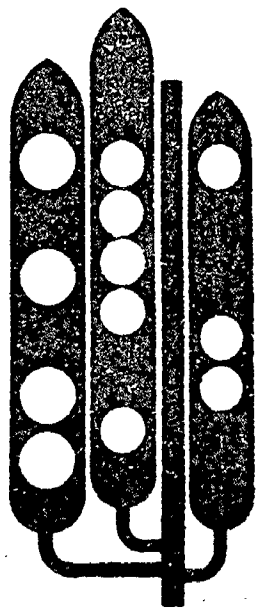
Solutions of guar and locust bean gums are non-Newtonian. Specifically, they are pseudoplastic. Thus the viscosity is at a minimum in the presence of intense agitation, which facilitates mixing and pumping. High viscosity is regained instantly when mixing stops resulting in prompt stabilization. Thixotropic materials on the other hand are very slow to regain viscosity.

Pseudoplasticity

Guar and locust bean gums even recover viscosity after severe mechanical treatment, as in the homogenization of salad dressings.

Low microbiological counts on Supercol gums ensure good stability in water solutions over 24 hours. In normal conditions, this viscosity will drop gradually over a two week period. However, these gums can be protected

Stability



to provide extended stability. Such protection is often provided by the cooking or other processing conditions required for the foods in which Supercol gums are used, and by many food ingredients which have a protective effect including sugars, starches, eggs and fat. Careful selection of the appropriate point of adding the gum is also desirable.

Calorie Content

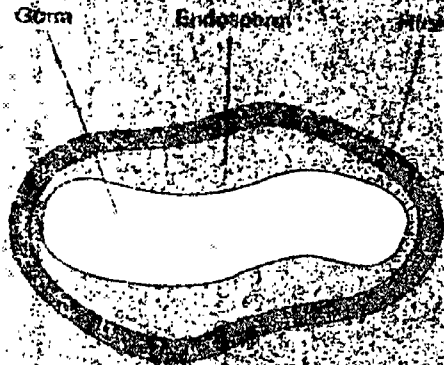
Animal tests show little or only partial conversion of guar or locust bean gums into energy. In view of the low levels of these gums used in food formulations the most practical procedure is to assume they contribute no available calories.

DIFFERENTIATION BETWEEN: SUPERCOL GUAR GUM

Guar is a leguminous plant that grows to a height of three to six feet. It bears many bean pods, each of which contains six to nine small rounded seeds or kernels. Because of its drought resistance, it grows mostly in the semi-arid regions of the world such as India, Pakistan and parts of the United States. It is an annual plant with a growing season of some twenty to twenty-five weeks. Harvesting takes place in the autumn.

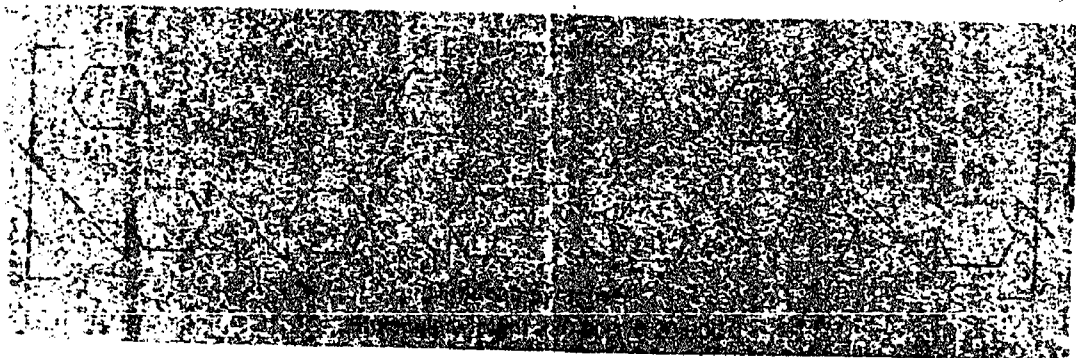
Guar Seed

K-11-721



Supercol guar gum is prepared by first removing the husk and then the germ fractions before producing the gum from the endosperm to yield high purity powder products of varying granulation and viscosity. Chemically, guar gum is a galactomannan with an average of one galactose on every other mannose unit. This high ratio of galactose to mannose contributes to the high degree of cold water solubility of guar gum.

The guar seed kernel typically is made up of 40-45% germ, 28-45% endosperm and 14-16% husk



Galactomannan
Mixture

Approximate

Analysis

