

LSI SUPPLY LINE

LSI SPECIALTY PRODUCTS NEWSLETTER



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LSI PROVIDES INGREDIENTS FOR BUSINESSES OF ALL SIZES

WHEN YOU NEED INGREDIENTS IN less-than-trailer-load (LTL) quantities, LSI delivers for you. And, with our incredibly wide range of products, you're sure to find exactly what you need. From maltitol to dextrose, molasses to lecithin, we have the ingredients to help you make a variety of great-tasting foods.

"LSI caters to customers that take LTL quantities of food ingredients, any bagged sugars, and any packaged corn syrup," said Kris Lutt, general manager. "We are a full-service distribution company."

LSI offers a complete line of ingredients to customers west of the Mississippi River. To ensure competitive pricing, we maintain a vast network of company-owned warehouse distribution centers as well as an entire truck fleet.

"We can be a one-stop shop," said Lutt. "If a customer has a need for a product on a regular basis, we'll bring that product in, warehouse it, and make local deliveries on it."

Plus, LSI is backed by the power of ADM, which puts even more ingredients at your fingertips and gives us even more distribution channels. And, LSI's relationship with ADM gives us an advantage—because ADM produces many of the ingredients you use every day, we can offer more competitive pricing and freight options. In addition, this enables us to market to a wide variety of customers with smaller

quantities than we could in the past. For our larger customers, it means we can supply all of your locations.

LSI'S BENEFITS DON'T STOP THERE:

SOURCING

Part of LSI's strength lies in its sourcing abilities—delivering our customers a variety of products from a variety of manufacturers. "If there's a specific product you want, we can provide it. If you have to have a product from a specific manufacturer, we'll provide it," said Lutt.

RESEARCH EXPERTISE

We know our customers may not have the resources for extensive product research, so we make it our business to make our advanced technical expertise available to you. Our team of experts is ready to meet any formulation challenge and will even develop new ingredients and customized blends to your specifications.

FLEXIBLE PACKAGING

Whether you need pails, jugs, totes, or drums, we'll provide the packaging that works for you. We can even arrange rail car and tanker truck shipments at your request.

*When you buy LSI, you buy service and selection.
See what we can do for you.*

LSI OFFICES CHANGE LOCATION

LSI Specialty Products has relocated its Oakland, California, office approximately 4 miles south to San Leandro.

The new office is located at:

**2450 Washington Ave.
Suite 285
San Leandro, CA 94577**

New local numbers are 510-346-3300 and fax 510-352-6029. The company's toll-free number, 800-GET-LSII (438-5744), remains the same.

The move brings LSI closer to its operations facility in Union City.



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LSI OFFERS DIVERSE POLYOLS PRODUCT LINE

WHETHER YOU'RE FORMULATING foods for the reduced-carb lifestyle or just looking to make your best-selling cakes and cookies healthier or sugar free, LSI has the right polyol for your recipe.

Our line contains mono-saccharides including sorbitol and mannitol; di-saccharides like maltitol; and mixtures such as maltitol syrup, hydrogenated starch hydrolysates (polyglycitol), and polyol blends.

WHAT ARE POLYOLS?

Polyols, or sugar alcohols, are a group of naturally occurring carbohydrate derivatives.

"Every sugar has a corresponding sugar alcohol," said Chris Busch, business development manager for SPI Polyols, a Newcastle, Delaware-based supplier to LSI. "When you add hydrogen, it makes them more slowly digested—it lessens [the polyol's] glycemic impact." This means polyols don't raise the body's blood glucose levels nearly as quickly as sugar, reducing the potential for obesity and type II diabetes.

In addition, polyols have varying laxation thresholds, the maximum amount a person can consume each day without experiencing digestion difficulties. While sucrose doesn't have a laxation threshold, sorbitol, for example, has a laxation threshold of 50g per day and maltitol, 100g per day.

Polyols provide sweetness and reduced calories in foods for the reduced-carb lifestyle without adding sugars. Other functionality benefits include improved shelf life and no browning (reduced reactivity).



HOW CAN I USE POLYOLS?

Polyols are a flexible ingredient family, having applications in both the food and cosmetic industries. In particular, sorbitol, the least expensive of the polyols, is excellent for cosmetics because of its great effects on humectancy.

However, polyols' current favorite role is in the exploding market driven by the reduced-carb diet craze. "There are a lot of

new customers coming on," said Busch. "The Atkins diet is causing a lot of people to look at new foods."

The star of this trend is maltitol, the polyol closest to sugar. It has 90% of the sweetness of sugar, and the two have almost identical negative heats of solution. In addition, its flavor profile, melting point, and solubility closely mimic sugar.

Polyols have also found a home in the sugar-free foods market. Many companies are purchasing sorbitol and maltitol to make infused fruit that is practically sugar free. The infused fruit is then added to cereals, baked goods, and other items.

In fact, the applications for polyols are growing every day—from baking to powdered drink mixes to confections and fillings, polyols are pervasive. And you can be sure, LSI has the polyol for you!

POLYOLS VS. SUCROSE					
	Sucrose	Maltitol	Sorbitol	Mannitol	Xylitol
% sweetness vs. sucrose	100	90	60	50	100
Calorie content (USA, Kcal/g)	4	2.1	2.6	1.8	2.4
Laxation threshold (g/day)	None	100	50	20	50
Solubility at 25° C (g/100g H ₂ O)	185	175	235	22	200
Heat of solution (cal/g)	-4.3	-5.5	-26.5	-28.9	-36.6
Melting point (°C)	160-186	144-147	99-201	165-169	92-95
Source: SPI Polyols					