
Bakery


Beverage & Distillery


Biscuits/Cookies

Uses In Industry

Invert Syrup & Caramel

INVERT SYRUP

What Is Invert Syrup?

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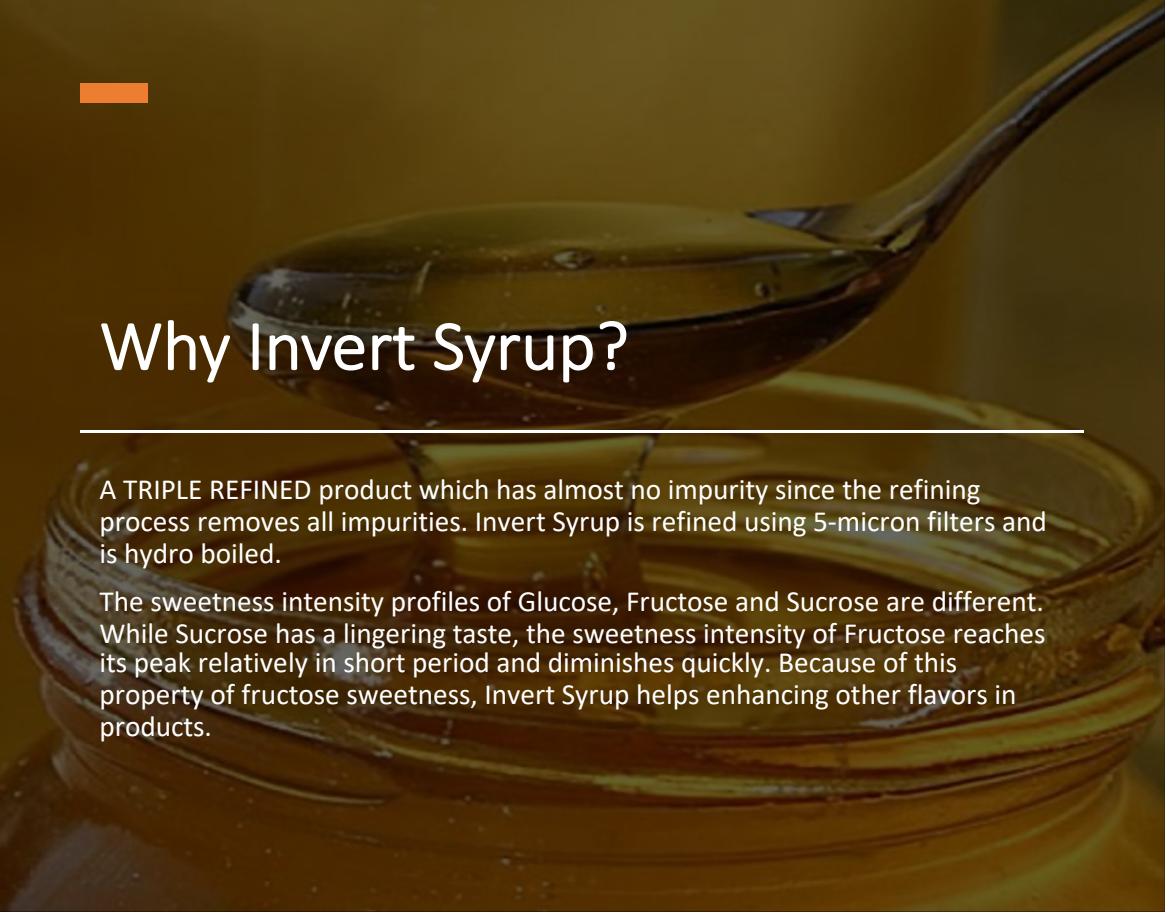
Invert Syrup is an aqueous form of equimolecular ratio of Glucose and Fructose. The product is made by catalytic hydrolysis of natural sugar (Sucrose) into monosaccharide, followed by decolorization deionization and finally vacuum evaporated to desired concentration. It is around 20% sweeter than table sugar.

In Simpler Terms :

Invert Syrup is a combination of **glucose** and **fructose**. When it is heated and mixed with water, hydrolysis occurs, a chemical reaction that separates the two components. This dissolved sugar is called **invert sugar.**

The Chemical Reaction Process :

$$\underset{\text{(Sucrose)}}{C_{12}H_{22}O_{11}} + \underset{\text{(Water)}}{H_2O} \xrightarrow{\text{Enzyme \& Resin}} \underset{\text{(Glucose)}}{C_6H_{12}O_6} + \underset{\text{(Fructose)}}{C_6H_{12}O_6}$$



Why Invert Syrup?

A TRIPLE REFINED product which has almost no impurity since the refining process removes all impurities. Invert Syrup is refined using 5-micron filters and is hydro boiled.

The sweetness intensity profiles of Glucose, Fructose and Sucrose are different. While Sucrose has a lingering taste, the sweetness intensity of Fructose reaches its peak relatively in short period and diminishes quickly. Because of this property of fructose sweetness, Invert Syrup helps enhancing other flavors in products.

Invert Syrup: Specification

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Brix	80 Brix (Baking)	80 Brix (Beverage & Distillery)
pH	5.5	5.5
Specific gravity	1.40	1.40
Color	Golden Yellow	Colorless
Inversion	95%-99%	95%-99%
Pack Size	300 kg drum/25 kg drum	300 kg drum/25 kg drum
Ash %	0.25	0.25
Solubility	Totally soluble in water / Glycerin / Glycol	Totally soluble in water / Glycerin / Glycol

Invert Syrup - What product are you using?

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Comparison between Acid Hydrolyzed Invert Syrup (generally available in the market & made by most customers) & our Combined Cycle Technology Process

Acid Hydrolyzed Process	Combined Cycle Technology Process
Artificial chemicals like HCL, Citric Acid, and H_2SO_4 are used for hydrolysis of sugar	Enzyme-cum resin process. The final solution is healthier and without harmful effects of acids
Acids have harmful effects on human body	Enzymes are protein supplements and resins take out the harmful organic and inorganic impurities out of the solution
Quality of acids effect the formulation and can even have hazardous effects with final products during longer storage	Enzymes-cum-resins enhances the effects of flavors, formulations, thus making the product better and harmless for consumption
The level of Inversion cannot be controlled thus rendering uneven product batches	Uniform inversion (up to 99%) makes uniform product mixes and better batch planning
Chances of contamination Acid based Invert Syrup	No chances of contaminations, proper refining is done to enhance product quality
Lower shelf life of products	Better shelf life of products made from combined cycle process
Presence of harmful carcinogens like HMF-5 & other complex products borne out of acid reaction	No such elements because bio reaction is used for hydrolysis

Invert Syrup: Benefits

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For better crust color, softer crumbs, and faster yeast activation.

For bee feeding and blending with honey. Has restricted bacterial activity.

Fruit Processing - For better shelf life due to good humectant properties, provides better taste profile and enhances flavor.

For use in cough syrups and glucose & fructose based intravenous fluids.

Juices, Lemonades, and Instant Energy Drinks - For instant energy & better taste than artificial

For caramelization, enhanced flavor, and better texture

Bakery

Invert Syrup

Preference over normal sugar:

- Enhances flavors in products whether natural or artificial flavors used
- 23% sweeter than sucrose
- Usage: <=40% Invert Syrup, >=60% Sugar
- Provide nourishment for yeast
- Lowers the baking temperature and provides for faster baking
- Provide consistency, it is easy to measure and disperse
- Control crystallization in icings, so mouthfeel is soft
- Retain moisture, so breads, cakes and buns remains fresh and does not dry out
- Has high inversion and low ash content which is suitable to the industry

CARAMEL

Caramel: Specifications

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PARTICULARS	CLASS – IV (Double Strength)
PROCESS	SULPHITE AMMONIA PROCESS
	Sulphite Ammonia Caramel, Acid Proof Caramel, Soft Drink Caramel
	Acid Proof, Negative Color
APPLICATION	**Bakery, Cookies & Confectionary**
EEC NO.	**E150d**
DESCRIPTION	Produced by carefully controlled heat treatment of food grade carbohydrates with or without acids, alkalies, or salts in the **presence** of both **sulphite and ammonium compounds**
IONIC CHARACTER	Negative
SHELF LIFE	1 Year

Bakery

Caramelized Sugar Syrup

(Class IV)

- No side effects/ No off notes
- Natural color and flavor
- Best suited for confectionary (brown bread) & bakery

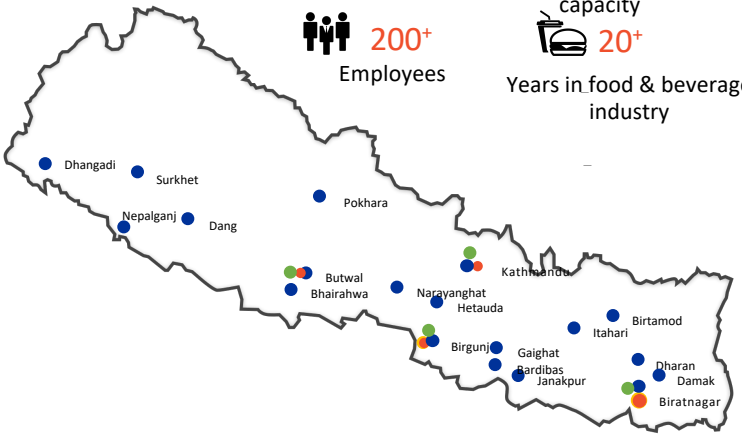
Sarawagi Group – Our Reach

7
Cities

100+
Tons of frozen/chilled capacity

200+
Employees

20+
Years in food & beverage industry



*Those marked in ● are our office locations

*Those marked in ● are our distributor locations

*Those marked in ● are our cold storages

We have 1 truck of 7 MT frozen capacity 3 MT of chilled storage capacity

Distributors

- Dhangadhi
- Nepalgunj
- Dang
- Butwal
- Bhairwa
- Narayanghat
- Pokhara
- Gaighat
- Hetauda
- Janakpur
- Ithari
- Dharan
- Biratnagar
- Damak
- Surkhet
- Birtamod
- Bardibas

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