	<p style="text-align: center;"><b>TG 42</b> <b>Product Specification</b> <b>TATSAN GLUCOSE 42</b></p>	Specification No : KG.SPME.03
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### **Product Definition :**

Definition : It is a natural corn syrup which is produced by hydrolysis of starch milk.

Chemical Name of Product : Carbohydrate / Glucose

### **Chemical Properties :**

	Min.	Max.	Method
Brix [%]	: 82.0	84.0	Calibrated refractometer, 20°C
Dry Substance [%]	: 79.7	81.7	Brix – Dry Substance Table
Refractive Index	: 1.4959	1.5014	Brix – Dry Substance Table, 20°C
Density [g/mL]	: 1.4213	1.4350	Brix – Dry Substance Table, 20°C
Dextrose Equivalent [%]	: 40.0	44.0	Lane-Eynon
pH	: 4.00	6.00	Calibrated pH Meter, %40DS
SO <sub>2</sub> [ppm]	: -	10.0	Titration with iodine solution
Sulfated Ash [%]	: -	0.1	Ash Oven 550°C, +H <sub>2</sub> SO <sub>4</sub> , min. 3st
Color [Icumsa]	: -	20.0	Spectrophotometric Method, 420nm
Insoluble ash in HCl [%]	: -	1	With %10 HCl solution, on ds

### **Carbohydrate Profile :**

Dextrose [%]	: 14.0	21.0	H.P.L.C.(on ds)
Maltose [%]	: 12.0	18.0	H.P.L.C.(on ds)

### **Heavy Metal Contents :**


Arsenic [ppm]	: -	1	External Lab*
Copper [ppm]	: -	5	External Lab*
Lead [ppm]	: -	0.5	External Lab*

### **Microbiological Analysis :**

T. mesophilic aerobic bacteria [coloni/g]	: -	1000	Filtration Method
Mold [cuf/g]	: -	100	Filtration Method
Yeast [coloni/g]	: -	100	Filtration Method
Osmofilic yeast [cfu/g]	: -	100	Filtration Method
E.Coli [g]	: None		External Lab*
Salmonella [25g]	: None		External Lab*

	<b>Prepared by</b>	<b>Approved by</b>	<b>Quality System Approval</b>
<b>Function</b>			
<b>Name</b>			
<b>Sign</b>			

\*Accredited method is preferred

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#### **Physical Properties :**

Physical State	: dense liquid
Colour	: a changeable colour from colourless to light yellow
Odour	: Odourless.
Taste	: No off-taste.
Appearance	: No visible impurity.
Solubility	: Soluble in water.

#### **Hazard Identification :**

The above-mentioned corn syrup has no direct or indirect effect on human health. It does not contain any hazardous chemicals, additives or color precursors for environment and storage area. Additionally, it doesn't include any chemical/biological element which causes dust effect, gas effect and environmental pollution.

#### **Personal Protection :**

There is no need any personal protection while working with the corn syrup. However, since it is used for food purposes, hygienical working conditions must be supplied.

#### **Ecological Information :**

It doesn't create Environmental pollution.

#### **Toxicological Information:**

It doesn't have any acute or chronic poisoning event.

#### **First Aid Measures :**


Inhalation	: No hazard expected.
Eye contact	: Wash with plenty of water. Consult a doctor if any symptoms of irritation persists.
Skin contact	: Not dangerous
Digestion	: Not dangerous

#### **Fire-Fighting Measures :**

Fire extinguishing agents	: CO <sub>2</sub> , chemical dryer, foam and water
Flammable properties	: Not flammable
Hazardous Decomposition	: If the product is exposed to high temperature, CO and CO <sub>2</sub> occur.

#### **Accident Release Measures :**

If the syrup spills or leaks in the course of an accident, it must be collected in an appropriate equipment for disposal. Since it is dustless, there is no need to use a vacuum cleaner. The product is a very good soluble in water, therefore there is no risk of precipitation in waste treatment systems.

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**Storage and filling :**

Storage	: The product must be stored in stainless steel tanks with smooth inner surface or cans with physically appropriate package. (which is not leaking or not twisted) It must be stored at about 50°C in the insulated tanks or in a humidity-free place in perfectly enclosed cans or barrels.
Filling	: The items that can gather dust should be avoided and some methods should be performed such as ventilation to get the dust out.
Shelf life	: One year after production date

**Usage Area :** Food Industry

**End users :** -

**Allergen Information :** No Allergen material.

**GMO Information :** non-GMO material.

**Distribution Conditions :**

Product label Info must be on the package.  
The product must be in line with the standart product specification.  
The package must be in good conditions.  
Transportation must be in the proper conditions not to create any physical, chemical and microbiological effects on the product.

**Labelling Data:**

Product name, ingredients, Product quantity, Production date, Lot No, Company name and address, Best Before.  
No labelling for bulk product.

**Packaging :**

For bulk products, Stainless steel Containers, cans with 25 kgs and barrels with 300 kgs.

**Company :**

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