

## **WHY TYZACT-C?**

### **1.A WHO-GMP CERTIFIED PRODUCT**

### **2.AN ISO 9001 : 2015 , ISO 14001:2015 , ISO 22000:2005 CERTIFIED PRODUCT**

### **3.COMPLIES WITH THE MRP AS FIXED BY INDIAN GOVERNMENT.THUS GENUINELY PRICED WITHOUT ANY COMPROMISE IN QUALITY**

### **4.ITS CHEMICAL CONSTITUENTS ARE ALL PHARMACEUTICAL GRADES (I.P.) GRADE**

Now lets clarify what does PHARMACEUTICAL GRADE (I.P.) GRADE of chemical constituents specify?Any chemicals for example ISOPROPYL ALCOHOL has been broadly classified into two types :

A.INDUSTRIAL GRADE : Used for industrial application only where no human consumption or application is needed

B.PHARMACEUTICAL GRADE OR (I.P.) GRADE : Used for pharmaceutical/fooding purposes for human consumption and application

Pharmaceutical Grade (I.P.) of a particular chemical is made by making it extra pure by removing harmful substances from its Industrial Grade since it will be used for medicinal purpose for human application.Thus "I.P." grade of a particular chemical is always costlier than industrial grade.

So the chemical constituents of a hand sanitizer should strictly be (I.P.) grade in order to avoid the harmful and poisonous substances present in the industrial grade.

Only the abbreviation (I.P) beside the chemical constituent denotes and sanguine that the particular constituent is of pharmaceutical grade.

So there is a lot of difference between the composition of a particular sanitizer stating "ISOPROPYL ALCOHOL /IPA = 70% (V/V)" indicating industrial grade and "ISOPROPYL ALCOHOL/IPA (I.P.) = 70% (V/V)" indicating pharmaceutical grade.

Independent of the type of alcohol present in a hand sanitizer which can be ETHANOL/ETHYL ALCOHOL it should be (I.P.) Grade.

### **5.TYZACT-C CONTAINS "ISOPROPYL ALCOHOL (I.P.) = 70% (V/V)" AS PER WHO SPECIFICATIONS.**

Now lets clarify why the above is so important!!!

Generally a hand sanitizer composition for anti viral action should contain either ISOPROPYL ALCOHOL OR ETHYL ALCOHOL (also known as ETHANOL) as alcohols.ETHANOL is cheaper than ISOPROPYL ALCOHOL and hence to lower the product costing it is being used.But ethanol evaporates faster than isopropyl alcohol and thus evaporates off faster from your hands thereby decreasing antiviral efficiency.Over it the disinfectant and antiviral activity of isopropyl alcohol is slightly better than ethanol.

ALCOHOL is a general name for all types of alcohols like METHYL ALCOHOL (METHANOL) OR ETHANOL OR ISOPROPYL ALCOHOL.So a hand sanitizer composition must clearly reflect what type of alcohol is present in it.Supposedly if it is stated in the composition as "ALCOHOL = 80% (V/V)" then it doesnot clarify what type of alcohol is actually present in it.METHANOL is about 1.5 to 2 times cheaper than ethanol and isopropyl alcohol and is a poison when consumed or applied even in small concentrations for human application.So if the composition of hand sanitizer states only "ALCOHOL" as its constituent we actually dont know what type of alcohol is being used??

### **6.THOUGH TYZACT-C CONTAINS ISOPROPYL ALCOHOL (I.P.) GRADE AT 70% (V/V) CONCENTRATIONS WHICH IS COSTLIER THAN ETHANOL/ALCOHOL AS PRESENT IN THE COMPOSITION OF SOME HAND SANITIZERS ITS MRP PRICE IS STILL AS PER GOVERNMENT REGULATIONS.**

