

Tissue-Simulating Liquid for SAR Measurement



Feature

This Tissue-Equivalent liquid meets the requirement of dielectric properties standardized by ARIB (Association of Radio Industries and Businesses), FCC, and IEC for the human head and body. The product can be applied for SAR measurement for a cellular phone, measurement of radiation pattern, and the development of receiving and transmitting antenna used nearby a human body. The product is ecological, non-smell, and has small temperature dependency of dielectric properties. Various kinds of liquid are available that are applicable to the measurement for a wide variety of frequencies for wireless terminals. These products are developed based on studies done by NICT, the National Institute of Information and Communications Technology in Japan.

- **Abundant lineup of products**

You can select a liquid that is applicable for SAR measurement of Amateur Radio, GSM, PDC, W-CDMA, Wireless LAN, and Bluetooth. (Please see below)

- **Ecology and Safety**

All the constituents, surfactant, preservative, and salt and water of the liquid are materials which can be added in foods, and it does not smell.

- **Easy handling and safe disposal**

The product does not contain poisonous or deleterious materials. It is also flameproof. (Please check your local regulations and follow them)

- **Usable in broad temperature range**

The dielectric property of the product is stable and can be used in a temperature range between 18 and 25 degrees Celsius, with the exception of some of the products.

- **Does not damage phantom shell made of FRP or acrylic**

Polypropylenes are likely to become hard.

- **Easy to adjust**

Dielectric properties can be easily adjusted with deionized water. (It takes about half a day to stabilize dielectric parameters of the liquid after adjusting with deionized water). After adjusting, we recommend to mix thoroughly and wait half a day before starting measurement.

- Head tissue simulating liquid

Type	Frequency Band [MHz]	Type	Frequency Band [MHz]
HT0150	150	HT1767	1767.5
HT0300	300	HT1800	1800
HT0450	450	HT1950	1950
HT0835	835	HT2018	2018
HT0900	900	HT2100	2100
HT0915	915	HT2450	2450
HT1450	1450	HT3000	3000
HT1610	1610	HT5000	5000
HT1624	1624	HT5200	5200

- **Body tissue simulating liquid**

Type	Frequency Band [MHz]	Type	Frequency Band [MHz]
BT0050F	50	BT1260F	1260
BT0144F	144	BT1450F	1450
BT0150F	150	BT1610F	1610
BT0300F	300	BT1800F	1800
BT0450F	450	BT1950F	1950
BT0835F	835	BT2450F	2450
BT0900F	900	BT3000F	3000
BT0915F	915		

- **2/3 Muscle simulating liquid**

Type	Frequency Band [MHz]	Type	Frequency Band [MHz]
BT0050	50	BT0430	430
BT0144	144	BT1200	1200