



**Laboratory for Chemical Production  
in Electronic Industry**

Roztocka 145, Velke Prilepy 252 64, Czech Republic.

Tel.:420 608 508 824, Fax: 420 220 930 196, e-mail: marmot@marmot.cz, www.marmot.cz

<b>Technical Data Sheet</b>	<b>MTL461</b>
<b>Product name:</b>	<b>MARMOT® Flux MTL461</b>
<b>Description and key properties:</b>	
<ul style="list-style-type: none"><li>• <b>Non aggressive Electro-insulation Organic flux</b></li><li>• <b>Highly activated without halides</b></li><li>• <b>For hand and automated soft soldering in electronics with solder Sn60-63%Pb</b></li><li>• <b>For soldering high-end, military electronics and avionics even mildly oxidized color metals</b></li><li>• <b>High performance of this flux allows using minimal content of the flux</b></li><li>• <b>For soldering components with the high rating of solderability, it is possible to supply solder (cored wire) with lower content of the flux</b></li><li>• <b>It is mainly appointed as a filling of the cored wire solder</b></li><li>• <b>The flux is not suitable for soldering by naked flame – it is flammable</b></li></ul>	
<b>Operating manual:</b> It is exclusively filled into the standard Tin Lead multicored wire solders MARMOT®	

Technical specification:	Corresponds to norm:	Classification:
	EN 29454-1	1.1.3.B
<b>Fully complies EU directive - RoHS</b>	DIN	F-SW-32
	J-STD	ROL0
Form	Solid	
Aroma	Odorless	
Density	0,98 + - 0,05	kg/dm <sup>3</sup>
Melting point	90 - 140	C
Boiling point	-	C
Color	light yellow - light brown	
Spread factor – USA methodology MIL-F-14256D	84-88	%
Spread areal – EU methodology		mm <sup>2</sup>
Absolute corrosive effect on Cu mirror	Without depletion Cu 4000 Angstrom	
- EN 29455-5 (ISO 9455-5:1992)	Without corrosion - Complies excellent	
- USA method MIL-F-14256D:	Without corrosion - Complies excellent	
corrosive effect tropical humidity 21 days	Without corrosion - Complies excellent	
<b>Insulation resistance :</b>		
5kV distance 1mm	250	M ohm
PCB distance 1 x 1mm	1600	M ohm
electrical breakdown distance 1mm	> 5	KV
Soluble in:	Isopropyl alcohol	250 g/lit.
Recommended thinner :	RMTL 64, Isopropyl alcohol,	
Recommended cleaner:	Isopropyl alcohol. Fast cleaning dissolvent <b>OTM19t</b>	
Used methodology conform the norm MARMOT, M01-3 for led free solders M01.1		
Other proprieties: Solid flammable substance read safety data sheet if released		
For aviation and military devices is recommend cleaning, for other usage we recommend to test the influence of flux residues on the device, according to the aspect of device and process of production. In all other application where the small residuum of the flux after soldering does not affect the product is not necessary to apply cleaning.		
Issued:	22.7.2008	
Revised	25.01.2013	

11.0.	<b>Safety and health protection</b>
11.1.	Long lasting and repeated contact with skin can cause irritation and sensibility, therefore is necessary to avoid direct contact. In case when it is not possible exclude possibility of direct skin contact, the workers must wear suitable personal protective equipment. Work area must be ventilated. Do not drink or eat during work. Do not use naked flame. After work, hands should be washed with soap and warm water and cared with protective cream.
11.2.	<b>First Aid</b> <b>Inhalation</b> – in case of excessive inhalation of flux fumes emitted during soldering, remove affected person to fresh air. <b>Ingestion</b> – in case of accidental Ingestion, wash out mouth with water and give enough pure water to drink. <b>Skin contact</b> – in case of skin contact, wash the place with soap and warm water. <b>Eye contact</b> – in case of eye contact, flush the eyes immediately with plenty of water. In case of large health damage or eyes contact, seek medical attention.
11.3.	<b>Above mentioned precautions are recommended for health protection of the workers, obligatory measures are described in Safety Data Sheet (SDS) - if released, and do not substitute internal safety regulations of final customer.</b>