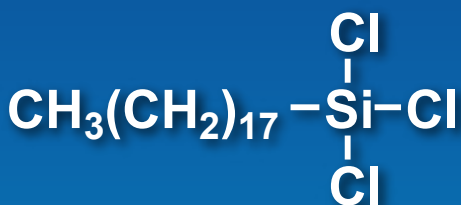


# High-purity Silane Coupling Agent: Octadecyltrichlorosilane (>99.0%)



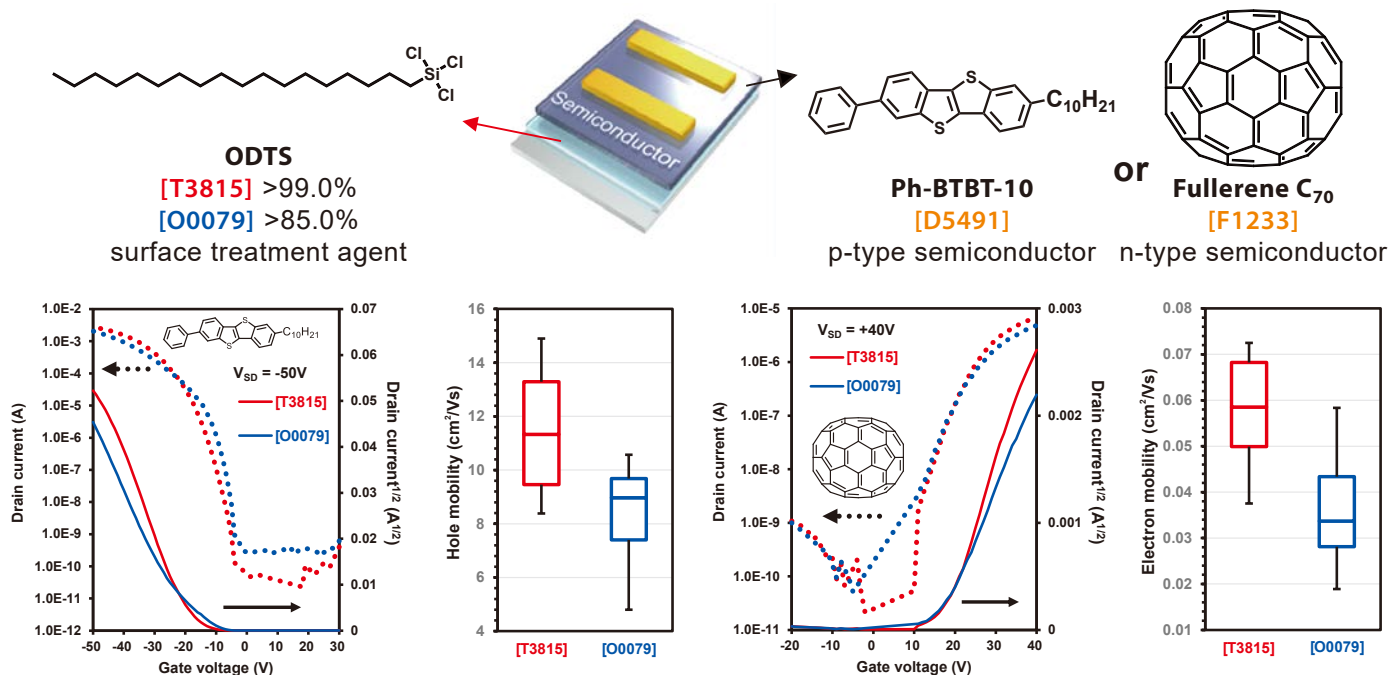
Octadecyltrichlorosilane (= ODTs) (>99%)  
1g  
[T3815]

## Advantages

- Extremely low levels of any branched and short alkyl chain impurities
- Packaged in a sealed ampule under argon to maintain high purity
- High-quality surface treatment enhances device performances

## Comparison of OFET performance by purity of octadecyltrichlorosilane (ODTS)

This product [T3815] and the conventional product [O0079] were evaluated as surface treatment agents in organic field effect transistor (OFET) devices using an in-house system.



ODTS		$\mu$ ave.	$\mu$ max	$V_{Th}$	on/off
		[cm <sup>2</sup> /Vs]	[cm <sup>2</sup> /Vs]	[V]	
Ph-BTBT-10 [D5491]	[T3815] >99.0%	11.3 (2.1)	14.9	-17.6 (3.7)	~10 <sup>8</sup>
	[O0079] >85.0%	8.5 (1.6)	10.6	-19.6 (6.9)	~10 <sup>8</sup>
Fullerene C <sub>70</sub> [F1233]	[T3815] >99.0%	5.81 × 10 <sup>-2</sup> (1.12 × 10 <sup>-2</sup> )	7.25 × 10 <sup>-2</sup>	18.0 (1.5)	~10 <sup>6</sup>
	[O0079] >85.0%	3.53 × 10 <sup>-2</sup> (1.00 × 10 <sup>-2</sup> )	5.83 × 10 <sup>-2</sup>	16.5 (2.2)	~10 <sup>6</sup>

The values in parentheses are standard deviations.

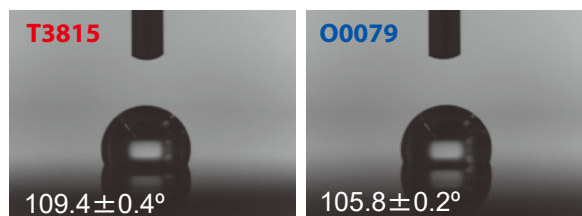
**The OFET performances were enhanced by using high-purity ODTs!**

# High-purity Silane Coupling Agent: Octadecyltrichlorosilane (>99.0%)

## Example: surface treatment procedure of Si/SiO<sub>2</sub> substrate

1. Piranha etching (H<sub>2</sub>SO<sub>4</sub>:H<sub>2</sub>O<sub>2</sub>=4:1, 80°C, 2h)
2. Ultrasonic cleaning (DW, Acetone, IPA, 10 minutes each)
3. Boiling cleaning (IPA, 3 minutes)
4. UV/O<sub>3</sub> cleaning (60 minutes)
5. ODTs solution immersion (0.01 M toluene, 16h, N<sub>2</sub>)
6. Ultrasonic cleaning (Toluene, Acetone, IPA, 10 minutes each)

### Contact angles of water



**Octadecyltrichlorosilane (= ODTs) (>99%)**

1g [T3815]

## Related products

### *n*-Alkyltrichlorosilanes

<b>Methyltrichlorosilane (C1)</b>	(>98%)	25g / 100g / 500g [M0450]
<b>Ethyltrichlorosilane (C2)</b>	(>98%)	25g [E0188]
<b>Propyltrichlorosilane (C3)</b>	(>99%)	25g [P0371]
<b>Hexyltrichlorosilane (C6)</b>	(>97%)	25mL [H0547]
<b><i>n</i>-Octyltrichlorosilane (C8)</b>	(>98%)	25g / 250g [O0168]
<b>Decyltrichlorosilane (C10)</b>	(>98%)	25mL [D1486]
<b>Dodecyltrichlorosilane (C12)</b>	(>97%)	25mL [D1509]
<b>Hexadecyltrichlorosilane (C16)</b>	(>98%)	25g [T3532]
<b>Octadecyltrichlorosilane (C18)</b>	(>85%)	25g [O0079]

### Other-type surface treatment agent

<b>1,1,1,3,3,3-Hexamethyldisilazane (=HMDS)</b>	(>96%)	25mL / 100mL / 500mL [H0089]
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### Organic semiconductors

<b>Ph-BTBT-10</b>	100mg / 250mg / 1g [D5491]
<b>Fullerene C<sub>70</sub></b>	100mg [F1233]

For further information please refer to our website at [www.TCIchemicals.com](http://www.TCIchemicals.com).

silane coupling agent



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