

## Vanadium Oxytrichloride (VOCl<sub>3</sub>)



### CHEMISTRY

Major Elements			
	Min.	Aim	Max.
Vanadium (Total)	29.1%	29.4%	29.7%
Vanadium (V <sup>+4</sup> )			0.03%
Chloride (Cl)	60.2%	61.0%	62.0%
Aluminum (Al)			0.003%
Copper (Cu)			0.001%
Iron (Fe)			0.008%
Manganese (Mn)			0.001%
Molybdenum (Mo)			0.005%
Nickel (Ni)			0.001%

### PHYSICAL CHARACTERISTICS

Color Specification	
<b>Typical Color:</b>	9 Gardner Scale (ASTM 1544)
<b>Maximum Color:</b>	10 Gardner Scale (ASTM 1544)
Physical Properties	
<b>Freezing Point:</b>	-77°C (-106.6°F)
<b>Boiling Point:</b>	126°C (260.1°F)
<b>Bulk Density:</b>	114 lbs/ft <sup>3</sup> .
<b>Specific Gravity:</b>	1.82 g/cc
Appearance	
Yellow Liquid	
Standard Packaging	
Bulk tanker or 250-gallon (950-liter) DOT or IMO containers containing 3,000 lbs. (1,360 kg) of product.	

*Vanadium Oxytrichloride (VOCl<sub>3</sub>)* is a high-purity product produced at our ISO 9001:2015 certified Hot Springs, Arkansas facility.

US Vanadium's vanadium oxytrichloride is a high-purity catalyst used in the production of EPDM rubber; it is also blended with titanium tetrachloride at the Hot Springs plant to form vanadium-titanium mixes for polyethylene production.

**Specification No. MC7 Revision No. 8**

Issue Date: 06/01/89 Revision Date: 05/07/19

Director of Technology Approval



Quality Manager Approval

