



# SHELL VOLUTA<sup>®</sup> OILS

## Quality quenching oils

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### Product Description

**Shell Voluta<sup>®</sup>** quenching oils permit uniform hardening of steels with minimum distortion and discoloration, while helping improve grain structure and promote long service life.

**Shell Voluta<sup>®</sup> C201** is a highly refined paraffinic mineral oil. This product is suitable for use where maximum hardness is not required. **Shell Voluta<sup>®</sup> C 201** is considered to be a slow quenching oil for use in bath operations between 90°F and 130°F. **Shell Voluta<sup>®</sup> C 400** is a highly refined paraffinic mineral oil blended with additives to impart rapid cooling, excellent oxidation stability and extended service life. **Shell Voluta<sup>®</sup> C 400** is suitable for use in baths operating between 90°F and 150°F when a medium to fast quenching product is required. **Shell Voluta<sup>®</sup> VH401** is made from highly refined paraffinic base oils and is used in quench and marquench operations. **Shell Voluta<sup>®</sup> VH401** is suitable for the production of very hard parts especially where distortion of the quenched parts cannot be tolerated. **Shell Voluta<sup>®</sup> VH401** is suitable for use in baths up to 350°F. The bath temperature should be maintained as low as possible, while achieving the desired metallurgical results. High oil temperatures shorten the useful life of the oil.

### Applications

- quench oil systems

### Features/Benefits

- heat dissipation
- excellent oxidation stability
- corrosion protection
- rust inhibition
- controlled hardness
- reclamation

## Typical Properties of Shell Voluta<sup>®</sup> Oils

	Test Method			
		C 201	C 400	VH401
Product Code		61049	61050	61052
Viscosity:				
@ 40°C, cSt	D 445	20.2	23.9	243
@ 100°C, cSt	D 445	4.08	4.26	20.0
@ 100°F, SUS	D 88	106	113.6	1288
@ 210°F, SUS	D 88	40.0	40.6	101
Viscosity Index	D 2270	100	100	95
Gravity, °API	D 1298	32.0	31.7	27.2
Flash Point, COC, °F	D 92	390	385	565
Pour Point, °F	D 97	10	0	5
Quench Speed	D 3520			
Seconds, 70°F		27	16	37
Relative Cooling Index		113	191	85
GM Quench Speed, Seconds		28	13.5	34

### Handling & Safety Information

For information on the safe handling and use of this product, refer to its Material Safety Data Sheet at <http://www.shell-lubricants.com/msds/>. If you are a Shell Distributor, please call **1+800-468-6457** for all of your service needs. All other customers, please call **1+800-840-5737** for all of your service needs. Information is also available on the World Wide Web: <http://www.shell.com/us/lubricants>.