

## **CPC Heavy Duty Brake Fluid**

- CPC H.D Brake Fluid is a high quality non-petroleum base brake fluid. Its quality fully complies with the specifications of U.S.A. FMVSS116 DOT3, and exceeds the requirements of SAE J1703 and SAE 70 R3 or the standards of US VV-B-680 military brake oil.
- The fluid possesses stable performance, strong anti-oxidation, appropriate viscosity, and strong corrosion resistance. It can provide good lubrication and corrosion resistance for brake systems or hydraulic systems.
- The fluid can be used in various hydraulic brake systems of passenger cars, buses, trucks, trailers, and heavy construction machinery under high duty operations.
- Instructions for use:
  - (1) The fluid can be mixed with other brake fluids which meet above DOT3 specifications. If the quality of original brake fluid is unknown, please be prudent to follow the below procedures on first use.
    - a. Exhaust the original brake fluid in the brake system.
    - b. Use the fluid to rinse the brake system and exhaust it.
    - c. Injected the oil and exhaust the residual air in the brake system.
    - d. Fill up the brake system with the fluid.
  - (2) Always keep the brake systems and fluid clean. Change the fluid immediately if it is polluted by other oils, dust and moisture.
  - (3) Always close the cap of the container tightly to prevent dust and moisture from polluting and affecting the quality of brake fluid.
- Packages: (1) 200 liter drum
  - (2) 19 liter pail
  - (3) 1 liter can, 1 liter\*12 case
- The typical data are listed as follow:

Sp. Gr., 15.6/15.6°C,D4052	1.07
Flash Point, COC, °C, D92	149
ERBP, °C, FMVSS-116	256
Wet ERBP, °C, FMVSS-116	152
Viscosity, Kin., cSt @100°C, D445	1.90
@-40°C, D445	981
pH Value, FMVSS-116	8.4
Fluid Stability, °C change, FMVSS-116	
High Temperature Stability	0



Chemical Stability   +2     Corrosion, weight change, mg/cm <sup>2</sup> , FMVSS-116		
Tinned Iron   +0.01     Steel   +0.01     Aluminum   +0.00     Cast Iron   +0.02     Brass   +0.05     Copper   +0.04     Fluidity at Low Temperature, sec, FMVSS-116   -40°C Flow Time     -40°C Flow Time   2     -50°C Flow Time   5     Evaporation, 100°C, FMVSS-116   -40°C     Weight Loss, %   48     Pour Point of Residues, °C   < -5	Chemical Stability	+2
Steel+0.01Aluminum+0.00Cast Iron+0.02Brass+0.05Copper+0.04Fluidity at Low Temperature, sec, FMVSS-116-40°C Flow Time-40°C Flow Time2-50°C Flow Time5Evaporation, 100°C, FMVSS-116-40°C Flow TimeWeight Loss, %48Pour Point of Residues, °C<-5	Corrosion, weight change, mg/cm <sup>2</sup> , FMVSS-116	
Aluminum+0.00Cast Iron+0.02Brass+0.05Copper+0.04Fluidity at Low Temperature, sec, FMVSS-1162-40°C Flow Time2-50°C Flow Time5Evaporation, 100°C, FMVSS-11648Weight Loss, %48Pour Point of Residues, °C<-5	Tinned Iron	+0.01
Cast Iron+0.02Brass+0.05Copper+0.04Fluidity at Low Temperature, sec, FMVSS-116-40°C Flow Time-40°C Flow Time2-50°C Flow Time5Evaporation, 100°C, FMVSS-116-40°C Flow Time, secWeight Loss, %48Pour Point of Residues, °C<-5	Steel	+0.01
Brass+0.05Copper+0.04Fluidity at Low Temperature, sec, FMVSS-116-40°C Flow Time-40°C Flow Time2-50°C Flow Time5Evaporation, 100°C, FMVSS-116-40°C Flow Time, secWeight Loss, %48Pour Point of Residues, °C<-5	Aluminum	+0.00
Copper+0.04Fluidity at Low Temperature, sec, FMVSS-116-40°C Flow Time-40°C Flow Time2-50°C Flow Time5Evaporation, 100°C, FMVSS-116	Cast Iron	+0.02
Fluidity at Low Temperature, sec, FMVSS-116   -40°C Flow Time 2   -50°C Flow Time 5   Evaporation, 100°C, FMVSS-116 48   Pour Point of Residues, °C <-5	Brass	+0.05
-40°C Flow Time2-50°C Flow Time5Evaporation, 100°C, FMVSS-1165Weight Loss, %48Pour Point of Residues, °C<-5	Copper	+0.04
-50°C Flow Time5Evaporation, 100°C, FMVSS-116Weight Loss, %48Pour Point of Residues, °C<-5	Fluidity at Low Temperature, sec, FMVSS-116	
Evaporation, 100°C, FMVSS-11648Weight Loss, %48Pour Point of Residues, °C<-5	-40°C Flow Time	2
Weight Loss, %48Pour Point of Residues, °C<-5	-50°C Flow Time	5
Pour Point of Residues, °C< -5Water Tolerance, FMVSS-116-40°C Flow Time, sec4-40°C Flow Time, sec4Sedimentation, -40°C, vol%NilSedimentation, 60°C, vol%NilCompatibility, FMVSS-116Sedimentation, -40°C, vol%Sedimentation, -40°C, vol%NilResistance to Oxidation, mg/cm², FMVSS-1160.06Weight change, Cast Iron0.06Weight change, Aluminum0.02Effect on Rubber Cups, FMVSS-116170°C Base Diameter Increase, mm0.2370°C Hardness Decrease, IRHD1120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	Evaporation, 100°C, FMVSS-116	
Water Tolerance, FMVSS-1164-40°C Flow Time, sec4Sedimentation, -40°C, vol%NilSedimentation, 60°C, vol%NilCompatibility, FMVSS-116Sedimentation, -40°C, vol%NilSedimentation, 60°C, vol%NilResistance to Oxidation, mg/cm², FMVSS-116Weight change, Cast Iron0.06Weight change, Aluminum0.02Effect on Rubber Cups, FMVSS-116170°C Base Diameter Increase, mm0.2370°C Hardness Decrease, IRHD1120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	Weight Loss, %	48
-40°C Flow Time, sec4Sedimentation, -40°C, vol%NilSedimentation, 60°C, vol%NilCompatibility, FMVSS-116Sedimentation, -40°C, vol%NilSedimentation, -40°C, vol%NilResistance to Oxidation, mg/cm², FMVSS-116Weight change, Cast Iron0.06Weight change, Aluminum0.02Effect on Rubber Cups, FMVSS-11670°C Base Diameter Increase, mm0.2370°C Hardness Decrease, IRHD1120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	Pour Point of Residues, °C	<-5
Sedimentation, -40°C, vol%NilSedimentation, 60°C, vol%NilCompatibility, FMVSS-116NilSedimentation, -40°C, vol%NilSedimentation, 60°C, vol%NilResistance to Oxidation, mg/cm², FMVSS-1160.06Weight change, Cast Iron0.06Weight change, Cast Iron0.02Effect on Rubber Cups, FMVSS-1160.2370°C Base Diameter Increase, mm0.2370°C Hardness Decrease, IRHD1120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	Water Tolerance, FMVSS-116	
Sedimentation, 60°C, vol%NilCompatibility, FMVSS-116Sedimentation, -40°C, vol%NilSedimentation, 60°C, vol%NilResistance to Oxidation, mg/cm², FMVSS-116Weight change, Cast Iron0.06Weight change, Aluminum0.02Effect on Rubber Cups, FMVSS-11670°C Base Diameter Increase, mm0.2370°C Hardness Decrease, IRHD1120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	-40°C Flow Time, sec	4
Compatibility, FMVSS-116Sedimentation, -40°C, vol%NilSedimentation, 60°C, vol%NilResistance to Oxidation, mg/cm², FMVSS-1160.06Weight change, Cast Iron0.06Weight change, Aluminum0.02Effect on Rubber Cups, FMVSS-1160.2370°C Base Diameter Increase, mm0.2370°C Hardness Decrease, IRHD1120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	Sedimentation, -40°C, vol%	Nil
Sedimentation, -40°C, vol%NilSedimentation, 60°C, vol%NilResistance to Oxidation, mg/cm², FMVSS-1160.06Weight change, Cast Iron0.06Weight change, Aluminum0.02Effect on Rubber Cups, FMVSS-1160.0270°C Base Diameter Increase, mm0.2370°C Hardness Decrease, IRHD1120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	Sedimentation, 60°C, vol%	Nil
Sedimentation, 60°C, vol%NilResistance to Oxidation, mg/cm², FMVSS-1160.06Weight change, Cast Iron0.06Weight change, Aluminum0.02Effect on Rubber Cups, FMVSS-1160.2370°C Base Diameter Increase, mm0.2370°C Hardness Decrease, IRHD1120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	Compatibility, FMVSS-116	
Resistance to Oxidation, mg/cm², FMVSS-1160.06Weight change, Cast Iron0.06Weight change, Aluminum0.02Effect on Rubber Cups, FMVSS-1160.2370°C Base Diameter Increase, mm0.2370°C Hardness Decrease, IRHD1120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	Sedimentation, -40°C, vol%	Nil
Weight change, Cast Iron0.06Weight change, Aluminum0.02Effect on Rubber Cups, FMVSS-1160.2370°C Base Diameter Increase, mm0.2370°C Hardness Decrease, IRHD1120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	Sedimentation, 60°C, vol%	Nil
Weight change, Aluminum0.02Effect on Rubber Cups, FMVSS-1160.2370°C Base Diameter Increase, mm0.2370°C Hardness Decrease, IRHD1120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	Resistance to Oxidation, mg/cm <sup>2</sup> , FMVSS-116	
Effect on Rubber Cups, FMVSS-11670°C Base Diameter Increase, mm0.2370°C Hardness Decrease, IRHD1120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	Weight change, Cast Iron	0.06
70°C Base Diameter Increase, mm0.2370°C Hardness Decrease, IRHD1120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	Weight change, Aluminum	0.02
70°C Hardness Decrease, IRHD1120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	Effect on Rubber Cups, FMVSS-116	
120°C Base Diameter Increase, mm0.25120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	70°C Base Diameter Increase, mm	0.23
120°C Hardness Decrease, IRHD3Stroking Test, FMVSS-116Pass	70°C Hardness Decrease, IRHD	1
Stroking Test, FMVSS-116 Pass	120°C Base Diameter Increase, mm	0.25
	120°C Hardness Decrease, IRHD	3
Product No. LB39701	Stroking Test, FMVSS-116	Pass
	Product No.	LB39701

Note: Typical properties are based on standard tests under laboratory conditions. Variations that do not affect product performance are to be expected during normal manufacture. Please consult your local CPC representative if you have any questions.