

DISPERSANTS

AUTOMOTIVE, HYDRAULIC GEAR, INDUSTRIAL, TRACTOR, FUEL, MARINE, AND SMALL ENGINE

DISPERSANT SUCCINIMIDES (PIBSI)

	HIGH NITROGEN PIBSI		HIGH MW PIBSI		BORONATED
Product Name	VCS 210	VCS 230	VCS 310	VCS 330	VCS 410
Appearance	bright & clear	bright & clear	bright & clear	bright & clear	bright & clear
Kinematic Viscosity @100°C, cSt	75	250	145	450	100
Total Base Number, mg KOH/g	45	80	21	25	47
Nitrogen, %wt.	2.2	3.2	1.3	1.2	2.3
Boron, %wt.	-	-	-	-	0.6

- **High Nitrogen PIBSI** is ashless, chlorine-free, polyisobutylene succinimide multi-functional component chemistry providing excellent corrosion control. These high nitrogen PIBSIs are general purpose primary dispersants with fit in nearly every sector of the transportation lubricant and fuel additive market. Products can be customized to meet specifications.
- **High MW PIBSI** is ashless, chlorine-free, polyisobutylene succinimide with superior long-term detergency capability compared to standard molecular weights. Exhibits excellent solubility and high-temperature stability. Effective in inhibiting carbon deposits and film and applied extensively in the formulation of high-grade internal combustion engine oil.
- **Boronated PIBSI** provides acid control, wear control, dispersancy and deposit control in both gasoline and diesel engines. This capped dispersant is used for various applications where dispersancy, and enhanced corrosion protection is desired. Specifically known to improve antiwear performance by hindering metal-to-metal contact by adsorption onto the machine's metal surface. Commonly applied as a secondary dispersant.

SUCCINIMIDES ANHYDRIDES

	POLYISOBUTYLENE [SA]			ALKENYL [SA]	
Product Name	VCS 110	VCS 130	VCS 150	VCS HDSA	VCS ODSA
Appearance	amber & bright	amber & bright	amber & bright	amber & bright	amber & bright
Kinematic Viscosity @100°C, cSt	480	800	2000	7	10
Acid Value, mg KOH/g	55	34	21	-	-
Residual MAN	< 0.5	< 0.5	< 1.0	< 0.1	< 0.1
Residual Olefin	-	-	-	< 4.0	< 4.0
Saponification Number, mg KOH/g	100	60	-	355	310

- **PIBSA and ASA** are produced via chlorine-free thermal process, both polyisobutylene succinic anhydride and alkenyl succinic anhydride are commonly used as an intermediate for dispersants, friction modifiers, and corrosion inhibitors in lubricating oil applications.

NOTE: Values indicated are typical physical properties and are not specification limits. Seller offers no warranty, expressed or implied, concerning the suitability of this product for any particular purpose.

