# Asphalt Extraction Solvents and Asphalt Wash Solvents

### Asphalt Extraction Solvents / Asphalt Wash Solvents

Supplier	Brand
Acme Chemex, Inc. Memphis, TN	
	Chemex 602 Hi Flash
Citrus Depot St. Petersburg, FL	
	Citrus King Amazing Orange Solvent
Ecolink, Inc. Tucker, GA	
	ATR Hi Flash
Asphalt Wash Solvents (To be used only as wash solvent)	
Supplier	Brand
Chemtek Inc. Research Triangle Park, NC	
	PavePro Green

#### Method of Documentation of Acceptance:

By brand and source.

#### Method of Approval:

Asphalt extraction solvents and asphalt wash solvents shall be terpene solvents or nonterpene solvents as approved by the Materials Engineer. The solvents shall be nonhalogenated and non- toxic and shall contain no petroleum distillates. All components, including emulsifiers and detergents, shall be completely biodegradable. The product shall have a mild odor and have excellent dissolving properties for asphalt cements to allow for complete and efficient rinsing of asphalt cement from paving material aggregate. The solvent shall have a water emulsifiable base approved by the Materials Engineer. When tested per ASTM D93, Flash Point by Pensky-Martens Closed Cup Tester, Procedure A, the product must flash at 60° C (140° F) or above.

• Asphalt <u>extraction solvents</u> shall meet the following requirements of a terpene as stated in AASHTO T 164: "Extractant shall be non-halogenated, non-toxic and shall readily dissolve asphalt cement from paving mixtures and place it into solution. This

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extractant shall be easily rinsed from the remaining aggregate without forming a gel and the extractant rinsed from the aggregate shall pass readily through the diatomaceous earth and the filter."

• Asphalt <u>wash solvents</u> shall meet the following requirements of a terpene as stated in AASHTO T 164: "Extractant shall be non-halogenated, non-toxic and shall readily dissolve asphalt cement from paving mixtures and place it into solution." This dissolved asphalt cement and the wash solvent shall be easily rinsed from the remaining aggregate without forming a gel.

A 2 gallon sample of the material, along with product information including a Safety Data Sheet (SDS), will be submitted for evaluation to the Materials Division. Information concerning the use of the solvent in extracting and/or washing asphalt cement from asphalt concrete hot mix should accompany the sample. The manufacturer/supplier will supply a certified laboratory test result indicating compliance with the requirements for Pensky-Martens Closed Cup Flash Point and provide a statement concerning the effectiveness of the material in complying with the requirements of this QPL as either an extraction solvent or a wash solvent or as both.

• The effectiveness of the solvent as an <u>extraction solvent</u> will be evaluated by performing an extraction according to AASHTO T 164, Method E (vacuum extraction). The product must produce results that agree within +/- 0.2% of a control asphalt cement content sample and agree with the control aggregate gradation sample. (Gradation limits based on Department hot mix design parameters: 4.75 mm and larger: +/- 7%; 2.36 mm - 0.300 mm: +/- 5%; 0.180 mm - 0.075 mm: +/- 3%). The test sample may contain any combination of various aggregates used in the state of Arkansas (a water rinse requirement is an acceptable addition to the test method).

• The effectiveness of the solvent as a <u>wash solvent</u> will be evaluated by performing a gradation of an accepted Mix Design in accordance with ARDOT Test Method 460. The effectiveness of the solvent will be determined in the Division's laboratory. The product must produce results that agree with the control aggregate gradation sample. (Gradation limits based on Department hot mix design parameters: 4.75 mm and larger: +/- 7%; 2.36 mm - 0.300 mm: +/- 5%; 0.180 mm - 0.075 mm: +/- 3%). The test sample may contain any combination of various aggregates used in the state of Arkansas.

Destination samples will be taken as deemed necessary to assure compliance with specifications. Material failures either in the laboratory or in field applications may be considered sufficient cause to reject the material. The Materials Engineer will determine if the failures warrant discontinuing acceptance and removal from this QPL.

If the product meets material requirements, the product will be approved for inclusion after receipt of a signed QPL certification.

The manufacturer of privately labeled products must be disclosed.

No information contained in these lists is to be used for promotional purposes.

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