

Application Data

Solubility Screen

Ultraviolet Light Absorbers

Solvents Tested

- MPDiol® Glycol
- Propylene glycol USP
- Dipropylene glycol fragrance grade
- Tripropylene Glycol
- 1,3 Butylene Glycol
- Propylene Carbonate
- Arcosolv® PnB Solvent
- Arcosolv® PM Solvent
- Arcosolv® DPM Solvent
- Arcosolv® TPM Solvent
- Arcosolv® PMA Solvent

UV Light Absorbers Tested

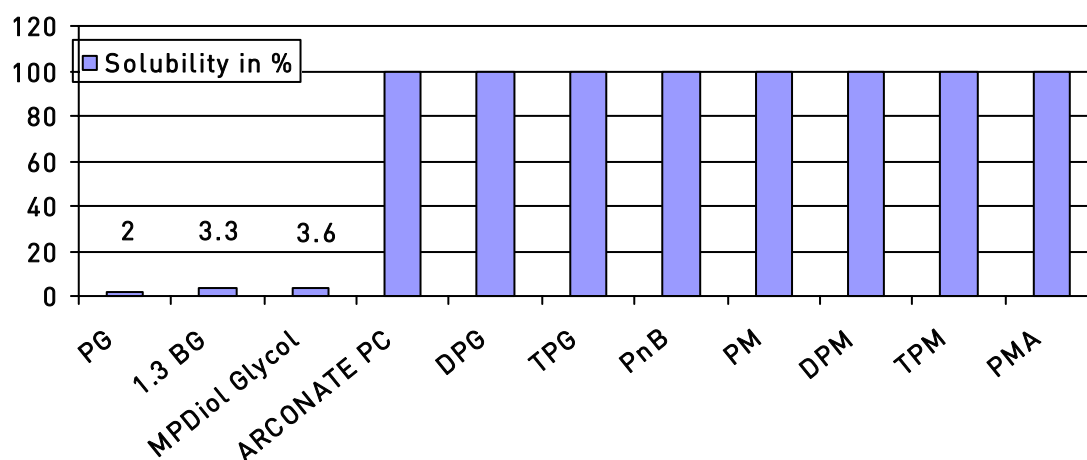
- Octyl dimethyl PABA
- Octyl salicylate
- Octocrylene
- Octyl methoxycinnamate
- 4-Methyl benzylidene camphor
- Phenyl benzimidazole sulfonic acid
- Benzophenone-3
- Avobenzone

Test Method

The screen was conducted using several ultraviolet light absorbers commonly used by cosmetic manufacturers. UV light absorber of 0.5g was weighed in 50g of solvent to be tested. The blend was stirred for 15 min. then stored 2 hours at 60°C, followed by 24 hours at 25°C. At this point if the solution was clear, another 0.5 g was added and the storage cycle repeated. The solubility limit was reached when the solution became hazy or crystallization occurred.

Solubility of Octyl Dimethyl Paba

OCTYL DIMETHYL PABA



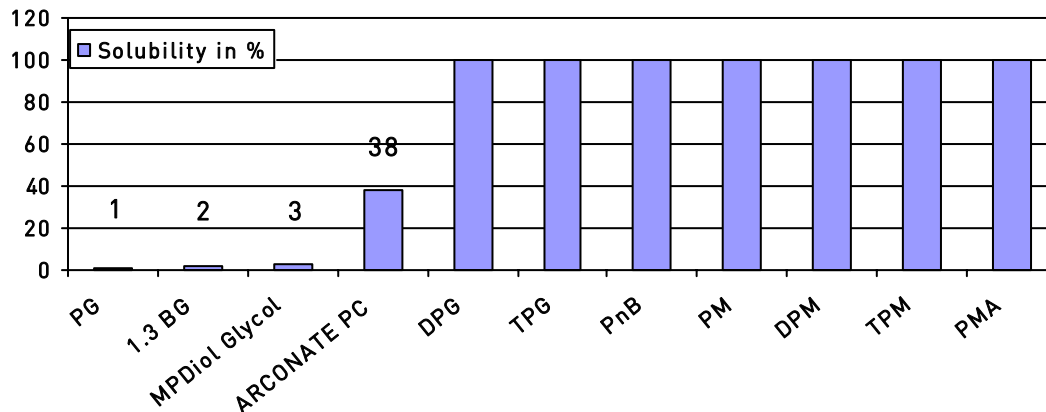
Application Data

Solubility Screen

Ultraviolet Light Absorbers

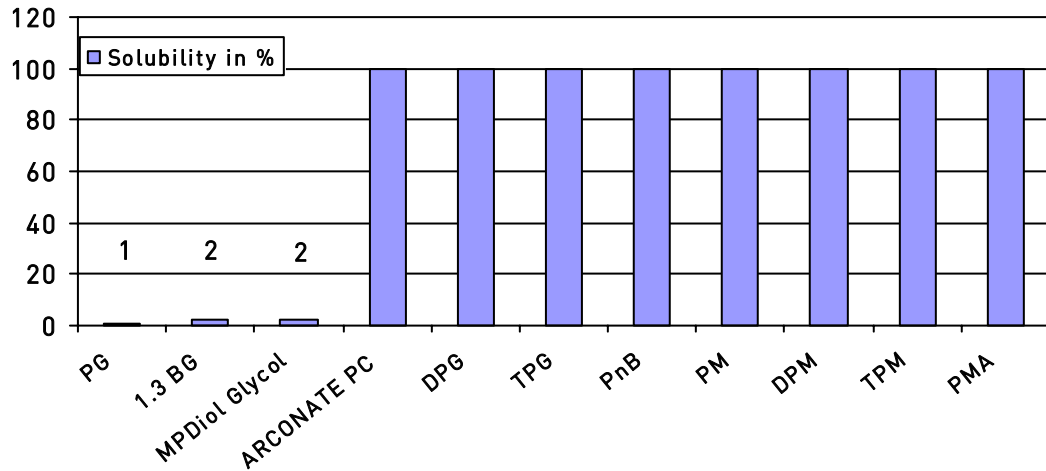
Solubility of
Octyl
Salicylate

OCTYL SALICYLATE



Solubility of
Octocrylene

OCTOCRYLENE



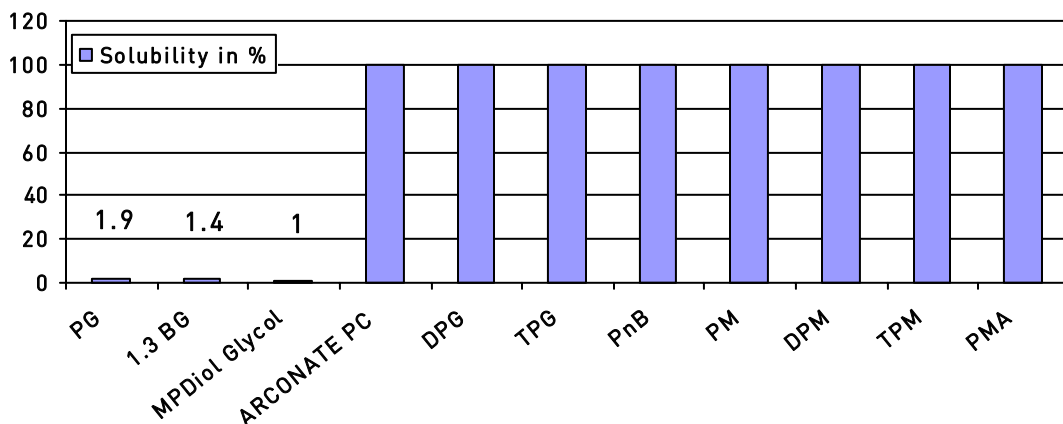
Application Data

Solubility Screen

Ultraviolet Light Absorbers

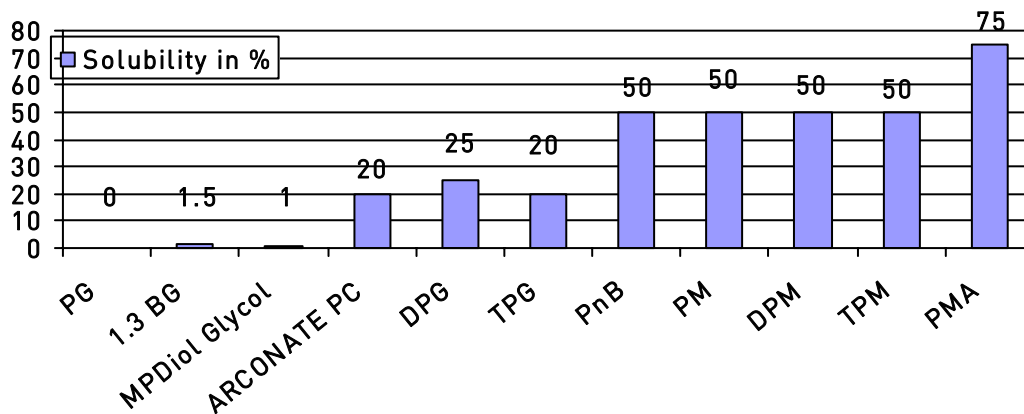
Solubility of Octyl Methoxycinnamate

OCTYL METHOXYCINNAMATE



Solubility of 4-Methyl Benzylidene Camphor

4-METHYL BENZYLIDENE CAMPHOR



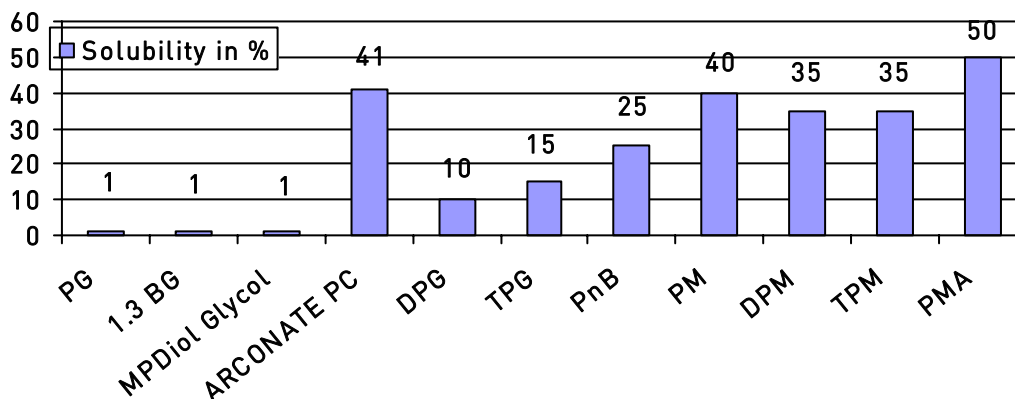
Application Data

Solubility Screen

Ultraviolet Light Absorbers

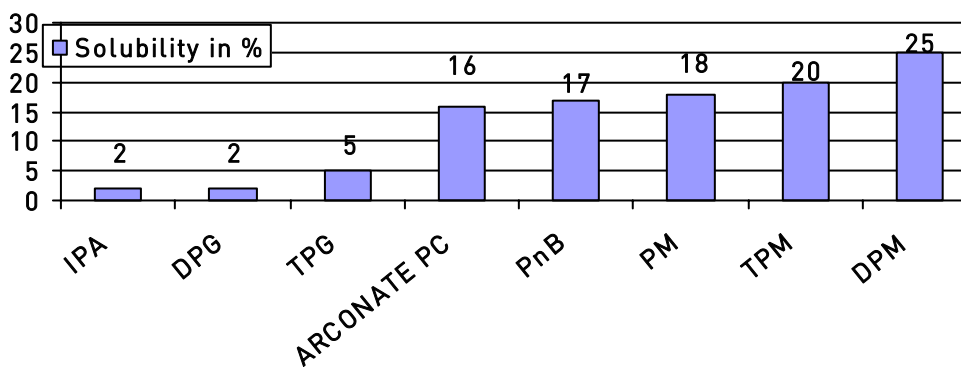
Solubility of Benzophenone-3

BENZOPHENONE-3



Solubility of Avobenzone

AVOBENZONE



This information is believed to be accurate as of the date of publication. It is the sole responsibility of the customer to determine whether the product is appropriate and suitable for the customer's specific use. Specific end uses may require approval by appropriate regulatory agencies. Lyondell Chemical Company makes no warranties, express or implied, regarding the product or information contained therein. The applicable Material SafetyData Sheet should be reviewed by customer before handling the Lyondell Chemical product. Lyondell Chemical Company disclaims any liability for infringement of any patent by reason of customer's use of any Lyondell Chemical Company products in combination with other materials or in any process.

World Headquarters
Lyondell Chemical Company
1221 McKinney
Houston, TX 77010
Tel (713) 652-7200
Toll-free (888) 777-0232
MSDS Hotline: (800) 700-0946

European Headquarters
Lyondell Chemical Europe, Inc.
P. O. Box 2416
3000 CK Rotterdam
The Netherlands
Tel (31) 10 275-5500
Tel (33) 3 44 24 92 05 (tech svc)

Lyondell South America
Av Roque Petroni Jr,
999, cj 123
Sao Paulo, SP 04707-910
Brazil
Tel (55) 11-5185-9300

Asian Headquarters
Lyondell Asia Pacific, Ltd.
41st Floor - The Lee Gardens
33 Hysan Avenue
Causeway Bay, Hong Kong
Tel (852) 28822-668
Tel (33) 3 44 24 92 05 (tech svc)