SmartSolve Water Soluble Pouches are designed to deliver a pre-portioned product without having to open the package. In many applications, this solution has the added safety advantage of eliminating human contact or exposure to harmful dry chemicals, agro chemicals, and medical applications. SmartSolve heat sealed paper is useful in many pouching applications with its water soluble design and heat seal coating.
Product Characteristics
SMARTSOLVE 6150A MATERIAL

PHYSICAL

SmartSolve 6150A
• Weight: 85 gsm
• Thickness: 115 microns

Seal
• Dwell: 1.25 sec
• Temperature: 340° F
• Ambient Chill: 100° F

Construction
• Water Soluble Paper
• PVA Resin: 15 microns typical
• Roll Size: up to 47.24” x 9350 ft
• SDS: SS6150A

MD Tensile
• 3.0 kN/mtr

MD Elongation
• 3.5%

ENVIRONMENTAL

All ingredients in the SmartSolve pouching material:

• Completed independent laboratory testing and received certifications of “Green” (TPCH and CPSIA 2008, OSHA, NIOSH, EU Reach, California Prop 65, IARC, and NTP).*
• Approved as inert for both food and non-food use.
• Screened for restricted substances and are generally recognized as safe (GRAS).

PERFORMANCE

Dispersability (Dissolve Time)
• 5-10 sec
• May be used in combination with other non-dispersable materials.

Form/Fill Orientation
• Vertical & Horizontal
• Withstands typical VFFS manufacturing/process temperature and conditions.

Print Process
• Flexo (preferred method)
• Offset
• Digital
• Water Soluble Inks

Results are “typical” and do not constitute a specification. Product Use: All statements, technical information and data contained in Product specifications, descriptions or other documents are based upon tests or experiences that SmartSolve materials are reliable. However, many factors beyond CMC Group, Inc./SmartSolve Industries’ control can affect the use and performance of a Product in a particular application, including the conditions under which the Product is used and the time and environmental conditions in which the Product is expected to perform. Since these factors are uniquely within the Customer’s or other end-user’s knowledge and control, it is essential that the Customer or other end-user evaluate the Product to determine whether it is fit for a particular purpose and suitable for the Customer’s or other end-user’s specific application(s). All sales of Product are subject to CMC Group, Inc./SmartSolve Industries Terms and Conditions, posted at: www.smartsolve.com/terms-conditions
NSF International has screened SmartSolve Water Soluble Pouches, identified below, for restricted substances and other substances of high concern for human and/or environmental health, using the GreenScreen® List Translator tool. The purpose of this tool is to rule out known chemicals of concern by screening ingredients against 36 lists derived from national and international authoritative bodies such as U.S. EPA, Canadian EPA, the European Union and more. These lists identify known substances of very high concern (SVHCs); carcinogens, mutagens, reproductive or developmental toxicants (CMRs); neurotoxicants; endocrine disruptors; and compounds with high persistence in the environment along with potential for bioaccumulation and/or toxicity (PBTs). The GreenScreen List Translator results in a “List Translator Score,” which indicates whether the ingredient(s) are included on one or more of the screening lists.

In addition to the List Translator tool, publicly available GreenScreen reports were obtained to determine the associated benchmark scores. Benchmark scores are determined by analyzing specific combinations of hazard classifications, and they reflect hazard concerns that have been established by governments nationally and internationally.

The table below provides the List Translator Scores for the SmartSolve Water Soluble Pouches. Note that only ingredients present at ≥ 0.1% in the product were included in the evaluation:

<table>
<thead>
<tr>
<th>Score</th>
<th>Percent in Product</th>
<th>Potential hazards</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benchmark 4</td>
<td>0.01%</td>
<td>0.01%</td>
<td>0.01%</td>
</tr>
<tr>
<td>LT-UNK</td>
<td>99.88%</td>
<td>99.88%</td>
<td>99.88%</td>
</tr>
</tbody>
</table>

The product contained one chemical at approximately 0.1% that earned a LT-P1 score (i.e. a possible Benchmark 1). Further examination of the supporting hazard data for this chemical confirmed a full GreenScreen would be necessary to discern the Benchmark score. Therefore, the LT-P1 was changed to LT-UNK. The SmartSolve Water Soluble Pouches were not found to contain any Benchmark 1 or LT-1 chemicals.

Reviewer: Janice M. McKee, Research Toxicologist
QC Reviewer: Nancy Linde, Managing Toxicologist
Project Manager: Leslie Dietrich, Project Manager — March 7, 2016
The Ashkin Group reviewed the results from NSF International, an accredited independent third-party testing laboratory on the SmartSolve Water Soluble Pouches.

The ingredients have individually been screened for restricted substances and other substances of high concern for human and/or environmental health against numerous (36) lists derived from national and international authoritative bodies. These lists include:

- US Environmental Protection Agency. Consolidated list of chemicals subject to the Emergency Planning and Community Right-To-Know Act (EPCRA), Section 112(4) of the Clean Air Act (CAA), National Center for Environmental Assessment, and the Integrated Risk Information System (IRIS) Database and Toxics Release Inventory (TRI) Program
- US National Institute of Occupational Safety and Health (NIOSH) and US Occupational Safety and Health Administration (OSHA)
- US National Institutes of Health, National Institute of Environmental Health Sciences, National Toxicology Program (NTP)
- EU Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
- EU Regulation on the Classification, Labelling and Packaging of Substances and Mixtures
- EU List of Chemicals and their assigned GHS Hazard Statement (GHS)
- California Safe Drinking Water and Toxic Enforcement Act Of 1986 (CA Prop 65)
- International Agency for Research on Cancer (IARC)
- Association of Occupational and Environmental Clinics (AOEC)

Based on the information supplied by NSF, there were no ingredients included in the SmartSolve Water Soluble Pouch materials that were found to be of concern.

Reviewer: Stephen Ashkin, President — April 5, 2016