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## **American Cleaning Institute Cleaning Product Ingredient Inventory Information Collection Methodology**

The American Cleaning Institute (ACI) has developed the Cleaning Product Ingredient Safety Initiative as one of its many efforts to promote the responsible management of cleaning products and their ingredients. The first step in this initiative is to compile and make publicly available a comprehensive inventory of ingredients used among its members in the formulation of home use consumer cleaning products sold in the United States. The Initiative focuses on laundry care, dish care, and hard surface cleaning products.

ACI has developed and published the individual ingredient names and, where available, associated Chemical Abstract Service (CAS) numbers, as part of a consolidated [Ingredient Inventory](#). This information sheet summarizes how the Inventory was assembled.

### ***Preparing an initial list of ingredient names***

As part of the earlier ACI Consumer Product Ingredient Communication Initiative started in 2010, each participating member company provides a means of public access, typically via the Internet, to lists of ingredients for each of their cleaning products. A link to the participating member companies' websites or other sources for accessing the ingredient lists can be found on the ACI Ingredient Central website (<http://www.cleaninginstitute.org/ingredientcentral/>). These lists were used as the starting point for preparing the Ingredient Inventory. Each manufacturer's web site was surveyed to identify laundry care, dish care, and hard surface cleaning products intended for home use in the United States. The survey was limited to formulated consumer products so durable articles such as scrub brushes and sponges were not included. Commercial and industrial cleaning products, and specialty cleaning products that are not represented by ACI, such as oven and jewelry cleaners, are also not included. Likewise, products that are classified as disinfectants or sanitizers under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) were not included. The U.S. Environmental Protection Agency conducts detailed assessments of ingredients in these products under FIFRA.

Once the relevant products for each manufacturer were identified, the name for every ingredient in each product was entered into a database exactly as listed by the manufacturer. The use of the product (i.e. dish detergent, fabric softener, etc.) and its form (i.e. liquid, powder, spray, etc.) were recorded. Other information such as CAS registry numbers were recorded as they were available.

Ingredients were entered for over 900 products made by 13 manufacturers distributed over 30 product use and form categories. The initial list of ingredients totaled over 13,000 entries with over 1000 unique listed ingredient names.

### *Consolidating ingredient names*

A number of the ingredients were found in more than one product, so many of the 13,000 entries that formed the initial list were repeats of the same ingredient name. Some of the same ingredients are listed by different manufacturers using different names, while other ingredients are listed by a general name that could describe more than one unique chemical. Therefore, the list of ingredients was consolidated and differences in naming resolved. Each listed ingredient was reviewed and one or more common names were assigned using naming conventions from trade literature and chemical nomenclature. Ingredients that are in fact durable articles such as wool, polyester or fabric were removed from the database. This decreased the list from over 1000 unique ingredient names to roughly 700.

Where ingredients were identified by generic names or by chemical category names, they were replaced by more specific ingredient names. To be as inclusive as possible, it was assumed that any of the chemicals represented by a generic name or included in a chemical category could be used in those products. Thus, this Inventory includes all the names of chemicals that could be represented by a generic name or chemical category. Studies, other inventories, and trade literature, including relevant portions of listings from the European cleaning products industry's Human and Environmental Risk Assessment Project (<http://www.heraproject.com>) and industry studies of high production volume chemical categories, were sources of lists of more specific ingredient names that could be used for generic names and chemical categories. Replacing generic names and chemical category descriptors with specific chemical names increased the consolidated list from roughly 700 ingredients to over 800.

All ingredients were reviewed individually to assign CAS Registry Numbers. In some cases, an ingredient is represented by more than one relevant CAS number. For some ingredients, a CAS number was not available. In most instances, these are botanical materials, ingredients identified by a trade name, or mixtures for which CAS numbers are not publicly available. The Inventory includes over 900 unique combinations of ingredient names and CAS numbers. One will note that the Inventory contains many fragrance-related ingredients, but it is not necessarily comprehensive in listing fragrances used in cleaning products. Fragrances are often a mixture of many ingredients and some ACI members use the same approach used by the U.S. Food and Drug Administration for the labeling of fragrance materials in cosmetics — identifying them in products as “fragrance” or “perfume.” A comprehensive list of fragrance ingredients used in a wide variety of products, including cleaning products, may be found in a similar inventory compiled by the [International Fragrance Association](#). For fragrance ingredients, the ACI Ingredient Inventory will rely on information and use guidance developed by the fragrance industry to substantiate the safe uses of these ingredients.

### *Quality Assurance and Control*

The methods used to collect information and compile the ingredient inventory included steps to ensure that results would be accurate and complete. During data compilation, a series of quality assurance reviews were conducted. These included re-entry of 10% of the data and comparison to find differences, multiple line-by-line reviews of the final inventory, computerized queries to search for inconsistencies and discrepancies; and consultation with member companies and trade associations to clarify listings.

### *Next Steps*

The Ingredient Inventory is the first step in ACI's Cleaning Product Ingredient Safety Initiative, which is an ongoing effort to provide easier access to human health and environmental safety data for the chemical ingredients used in consumer cleaning products manufactured by ACI members. Research is ongoing, and the names and CAS numbers associated with ingredients in the Inventory may be revised and modified as additional information becomes available. The next step in the project is to identify publicly available hazard data sets relevant to each ingredient. The long term goals of the project are to conduct exposure assessments and screening-level risk assessment to describe the safe use of every ingredient.

For more information regarding the ACI Ingredient Inventory, please see our [ACI Ingredient Inventory FAQ](#) or you may contact ACI directly by completing the [Contact Us](#) form available on the ACI Science website.