## BECKIE HURLEY

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### SDS AND TEST DATA EXPLANATION

Enclosed with this cover letter is a copy of our Safety Data Sheet (SDS -Formerly MSDS) for the liquid form of LiquiSmoke, and a summary of the Maxim Technologies and Wisconsin Occupational Health Laboratory reports on the smoke generated by Hurco's LiquiSmoke.

Please note that only people who are using the "raw" LiquiSmoke (the liquid form) will be concerned with the SDS sheet. People who are exposed to the "smoke" LiquiSmoke only need to be concerned with the Maxim Technologies and WOHL reports. What is important to note on the SDS sheet is Section 11 - Toxicological Information - it is not a potential carcinogen. The "raw" LiquiSmoke does not require any hazardous transportation documentation. \*This product is not listed on the Toxic Substance Control Act (TSCA) **Chemical Substance Inventory.\*** 

Since there is not an SDS for products in smoke form, we hired a private, nationally recognized laboratory, Maxim Technologies, Inc. of Sioux Falls, South Dakota, to sample the smoke generated by LiquiSmoke. The samples were sent to the Wisconsin Occupational Health Laboratory where a GC Solvent Scan was performed. Of the 107 items listed in a GC Solvent Scan, only .01 parts per million (PPM) petroleum distillates was found. The OSHA Permissible Exposure Limit (PEL) is 500 ppm. Carbon Monoxide and Carbon Dioxide levels all tested within the OSHA PEL. This information is important to persons being exposed to the "smoke". Even though these test don't identify any harmful quantities of toxic compounds, you will need to warn your customers of dangerous sewer gases that may be traveling with the smoke. They should always be warned to evacuate the premise when smoke is detected.

Finally, we had Maxim Technologies test the smoke generated by our LiquiSmoke for staining and residue. The tests showed that there was no staining or residue caused by LiquiSmoke. Your customers can rest assured that LiquiSmoke will not ruin their furniture or drapery. More information is included in the following document, "Scientific Evaluation of LiquiSmoke".

If you have any questions or concerns about Hurco's LiquiSmoke, please contact me at 1-800-888-1436.

Sincerely,

Rebecca Hurenz Beckie Hurley

Vice President

## LIQUISMOKE

MAXIM TECHNOLOGIES & WOHL TEST RESULT SUMMARY



# Scientific Evaluation of LiquiSmoke™

A Summary of the Scientific Evaluation Reports Produced by Maxim Technologies of Sioux Falls, South Dakota

During testing conducted by Maxim Technologies, the following facts concerning the smoke generated by LiquiSmoke were determined, under the guidelines set by The National Institute of Occupational Safety and Health (NIOSH), and the Occupational Safety and Health Administration (OSHA).

During the tests, Maxim Technologies collected a sample of the smoke generated by LiquiSmoke in a charcoal tube. The sample was sent to the Wisconsin Occupational Health Laboratory. A GC Solvent Scan was conducted to determine if the smoke generated by LiquiSmoke formed any hazardous compounds or conditions. The GC Solvent Scan searched for 107 different hazardous organic compounds. Of the 107 items listed, only .01 parts per million (ppm) petroleum distillates was found. The OSHA permissible Exposure Limit is 500 ppm.

Further testing by Maxim Technologies found that the ambient carbon monoxide levels were found to be zero. NIOSH regulations have determined that the "8 hour time weighted average" (TWA) for carbon monoxide to be 35 ppm. During the duration of the test, measurable TWA levels of LiquiSmoke ranged from 4.6 to 7.8 ppm – within the OSHA Permissible Exposure Limit (PEL) set by OSHA.

Maxim Technologies also tested for carbon dioxide levels. Ambient levels were found to be at 330 ppm. The level of carbon dioxide during the entire LiquiSmoke test was determined to be 500 ppm. The OSHA Permissible Exposure Limit (PEL) is 5,000 ppm.

In addition, testing by Maxim Technologies was also performed to determine if usage of the product left any staining or odor. Residual staining and odor tests were conducted in a closed facility filled with LiquiSmoke. Time interval testing of filter paper samples exposed to LiquiSmoke were examined under a microscope at 40X magnification. In all cases, no visible staining was present, along with no odor on any of the filter papers exposed to the smoke.

This summary is based on complete reports from Maxim Technologies of Sioux Falls, South Dakota. Copies of these tests, as well as the findings of the Wisconsin Occupational Health Laboratory, are available from Hurco Technologies, Inc.

## LIQUISMOKE

WOHL - COMPOUNDS NOT FOUND IN LIQUISMOKE



Methyl Acrylate

Methyl Chloroform

# Wisconsin Occupational Health Laboratory conducted an GC Solvent Scan looking for volatile organic compounds in Hurco's LiquiSmoke

#### NONE OF THE COMPOUNDS LISTED BELOW WERE DETECTED IN HURCO'S LIQUISMOKE

Acetone Dioxane (Diethylene Dioxide)
Allyl Alcohol Dioxolane - 1,3

Amyl Acetate (n) Epichlorohydrin Methyl Isoamyl Ketone
Amyl Alcohol Epoxybutane (1,2) Methyl Methacrylate
Benzaldehyde Ethyl Alcohol Methyl Styrene

Benzene Ethoxyethyl Acetate (2) Naphta (Coal Tar)

Butatone (2) Ethyl Acetate Nonane

Butyl Acetate (n) Ethyl Acrylate Octamethylcyclotetrasiloxane

Butyl Acrylate Ethyl Benzene Octanol
Butyl Alcohol (n) Ethyl Butyl Ketone P-Dichlorobenzene

Butyl Alcohol (Sec) Ethyl Butyrate Pentane

Butyl Alcohol (Tert) Ethyl Ether Pentanone (2)

Butyl Glycidyl Ether Ethyl Methacrylate Perchlorethylene

Butyl Methacrylate Ethyl Toluene Petroleum Distillate (Napththa)

Carbon Tetrachloride Heptanone-2 (MBK) Pinene-Alpha
Chlorobenzene Hexane (n) Pinene-Beta
Chloroform Hexone (MIBK) Propanol

Chloroprene Hexyl Acetate Propyl Acetate (n)

Chlorostyrene Isoamyl Acetate Styrene

Chlorotoluene (o) Isoamyl Alcohol Tetrahydrofuran

Cumene Isobutyl Alcohol Toluene
Cyclohexanol Isobutyl Isobutrate Trichloro-Benzene (1,2,4)

Cyclohexanone Iospropyl Acetate Trichloro-Ethane(1,1,2)

Decamenthyl Cyclopentasiloxane Isopropyl Alcohol Trichloroethylene
Diochlorethane (1,1) Isopropyl Ether Vinyl Acetate
Diochlorethane (1,2) Mesityl Oxide Xylene (o, m & p)

Diisobutyl Ketone Methyl Acetate Zinc Chloride