

February 7, 2023
TRC Project Number AER.2022.0001

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Subject: **REVISED Toxicology Review and Assessment (TRA)
Duct Seal**

Product Description: *Duct Seal* is a proprietary blend of a water-based acrylic emulsion polymer with small amounts of volatile organic compounds (VOCs), surfactants, and stabilizers. *Duct Seal* is used to seal heating, ventilation, and air conditioning (HVAC) ductwork and is applied using a closed, pressurized hose and nozzle system which injects heated sealant into the ductwork through large-diameter flexible tubes. The sealant coats and fills holes in the ductwork and during the process water and VOCs are removed due to evaporation.

Review: The toxicology review and assessment of *Duct Seal* included the evaluation of a new acrylic polymer that was selected to replace the vinyl acetate polymer previously used in the *Duct Seal* product as well as a review of the complete product formula as packaged for residential and commercial applications under the assumption of regular and reasonable use cases and conditions.

The review was based on the *Duct Seal* ingredients and product formulation information provided by the manufacturer: Aeroseal LLC of Miamisburg, Ohio. Literature searches of online databases were performed, including databases maintained by the National Library of Medicine and the European Chemicals Agency (ECHA). The review included the State of California's Prop 65 list, and the lists of chemicals evaluated by the U.S. Environmental Protection Agency (Integrated Risk Information System, IRIS), the National Toxicology Program (NTP), and the International Agency for Research on Cancer (IARC).

Findings: The replacement acrylic polymer and the totality of the ingredients as packaged for consumer use are not expected to result in acute or chronic toxicity under reasonably foreseeable conditions of use. Skin or eye irritation may result if contact occurs with the liquid form of the sealant before application. Ingestion of the product may produce mild gastrointestinal effects, but ingestion is unlikely to occur because the product is sold for professional use only and is handled by trained technicians.

The product does not contain ingredients identified as reproductive toxins, developmental toxins, or neurological toxins. No ingredients are on the California Proposition 65 list of

compounds known to the State to cause cancer or reproductive toxicity. No ingredients have been identified as carcinogens by the U.S. EPA, IARC, or NTP.

Conclusion: The acrylic polymer selected to replace the vinyl acetate polymer previously used in the *Duct Seal formula* does not pose a hazard that would require re-formulation, additional health and safety requirements to protect technicians during the application process or occupants of structures treated with the product, or other forms of mitigation.

Limitations of Liability: TRC has relied on the product owner or manufacturer to provide all relevant analytical results and the identities of each of this product's ingredients whether each ingredient is an intentional component of the product. TRC makes no claim whatsoever as to the reliability or accuracy of the information provided by the product owner or manufacturer.

The evaluation performed for this report is subject to the limitations imposed by the scientific information available at the time of the assessment. This report was not designed to quantify or identify all potential hazards to human health associated with the product(s) evaluated. This report does not provide a guarantee as to the level of health hazard that may be associated with the use or misuse of the product(s) evaluated. The conclusions of this report may change as new scientific or technical information becomes available that could modify exposure conditions or toxicity. Other toxicology professionals may reasonably employ different approaches and methods to this or similar projects.

This assessment was conducted in a manner consistent with generally accepted standards of care that existed on the date of this report. No warranty, express or implied, is made.

Notes: No chemical analysis, or laboratory or animal testing was performed in the preparation of this TRA. All toxicity information upon which this TRA is based was found in the literature. This TRA addresses acute toxicity hazards as defined in the United States Code of Federal Regulations (16 CFR 1500.3), and chronic toxicity hazards as defined in 16 CFR 1500.135.

The author of this report is a Diplomate of the American Board of Toxicology (DABT) certified in general toxicology. This report consists of two pages and is valid only as written and signed on February 7, 2023. This TRA should be reviewed at least every five years and revised at any time there is a material change in the formula.

Approval

_____	Scott D. Dwyer, PhD, DABT
Signature	Printed Name
Consulting Toxicologist	February 7, 2023
_____	_____
Title	Date