



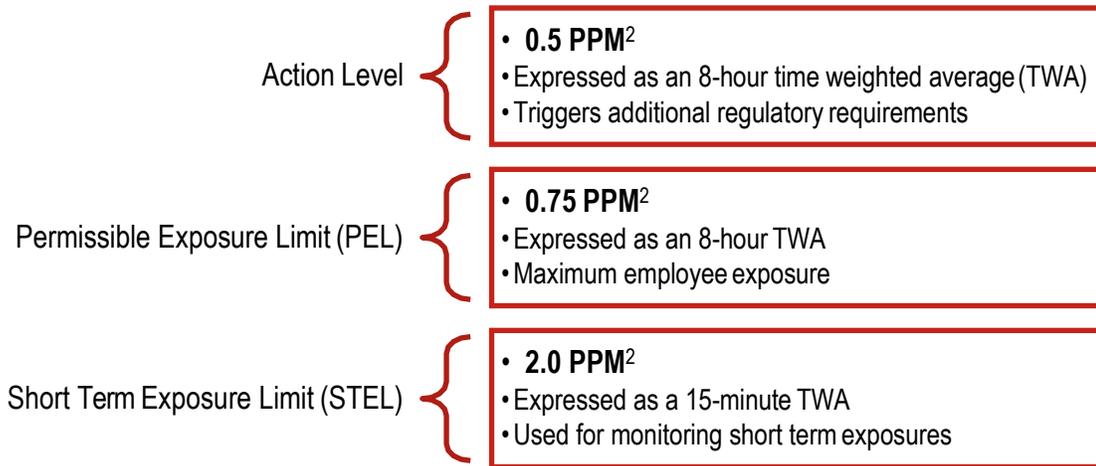
## Safe Handling of Sal CURB<sup>®</sup> Liquid Antimicrobial

### Introduction

Maintaining the health and safety of livestock and poultry is an important aspect of animal welfare and food safety. To prevent the introduction of disease and human pathogens into the food chain, producers must take a comprehensive approach to biosecurity. Assuring the food these animals consume is free of pathogen contamination, such as *Salmonella* is a must. This is where Sal CURB comes in. Sal CURB is a liquid product containing formaldehyde, which maintains feed and feed ingredients *Salmonella*-negative for up to 21 days. This protection offers peace of mind to producers and feed manufacturers in their biosecurity programs.

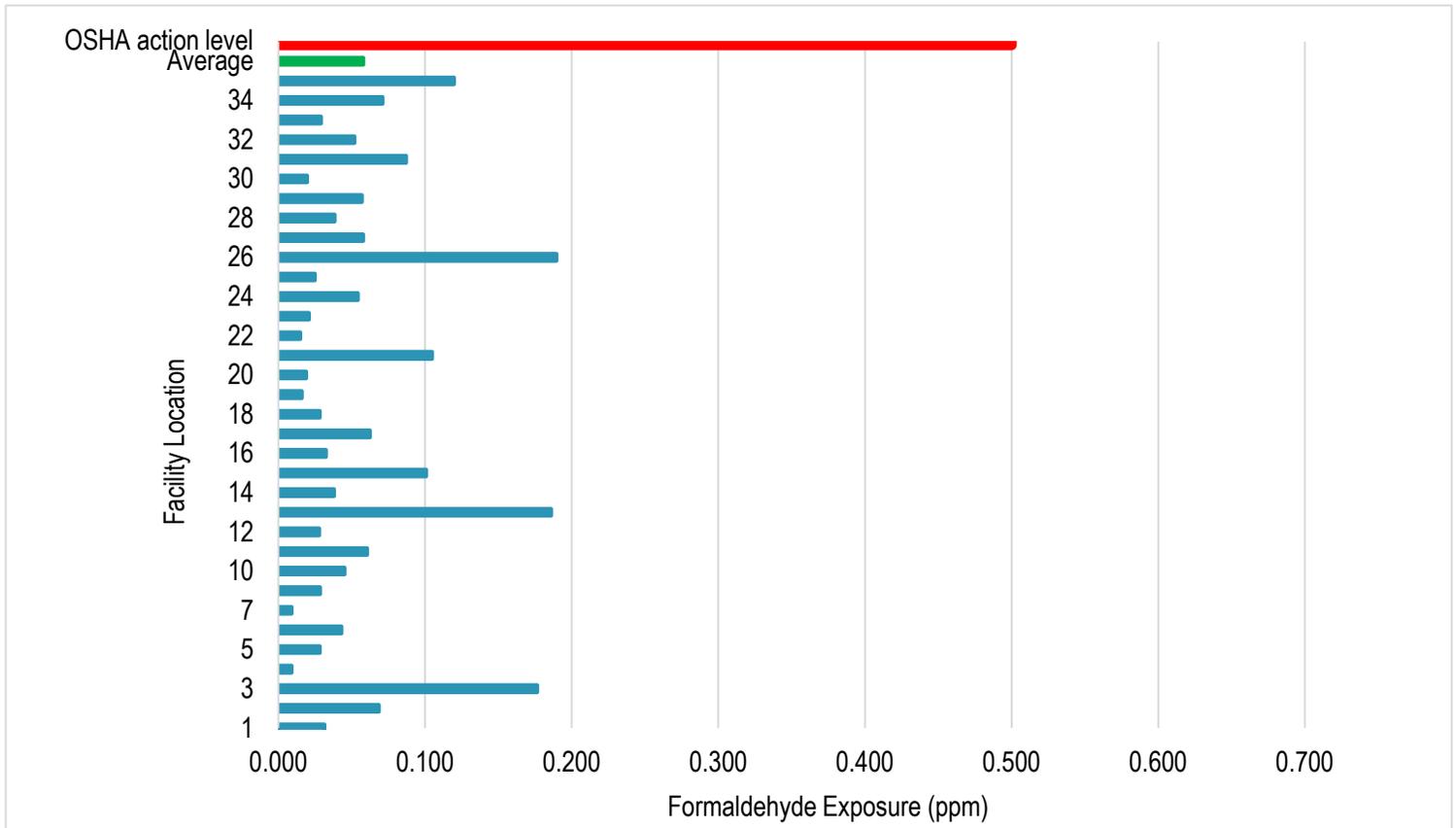
### Regulatory Requirements

Employee exposure to formaldehyde is regulated by the United States Department of Labor’s Occupational Safety and Health Administration (OSHA). OSHA sets standards on the safe levels of exposure to chemicals and has three employee exposure levels for formaldehyde. The permissible exposure limit (PEL) is 0.75 ppm over an 8-hour time weighted average, whereas the action level, the lowest level, is set at 0.5 ppm. The PEL is the level of exposure established as the highest level of exposure an employee may be exposed to, without incurring the risk of adverse health effects.<sup>1</sup>



### Track Record of Safety

Employee exposure levels for customers handling Sal CURB is shown below in Figure 1, with the OSHA Action level included for reference. The exposure levels indicated on the graph represents the average of each employee exposure at each location. The average exposure for Sal CURB customers is 0.063 ppm. This level is well below the regulations set forth by OSHA. Kemin takes safety seriously and works alongside customers during all stages of Sal CURB use to establish a safe working environment.



**Figure 1.** Mean employee exposure to formaldehyde at facilities handling Sal CURB<sup>®</sup> Liquid Antimicrobial.<sup>3</sup>

## Process to Safe Handling

At Kemin, we are dedicated to providing a safe work environment for our customers and their employees. To accomplish this requirement, we must first ensure that Sal CURB is being applied properly. This takes a dedicated team of employees known as the Kemin Product Application Department (PAD). This team is made up of engineers who specialize in the safe, efficacious, and accurate application of liquid ingredients. PAD engineers go through an ISO process when installing a Sal CURB system with processes in place to ensure all checks are completed and customers have the safest application possible. Following the installation, the PAD service continues with scheduled quarterly safety audits to monitor air quality, check for leaks, confirm application calibration and perform other system safety.

## References

- Occupational Safety and Health Administration. Standard Interpretation October 6, 1995.  
[https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=INTERPRETATIONS&p\\_id=24470](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=24470)
- 29 CFR 1910.1048, Formaldehyde.
- Kemin Internal Data.

