

## **Chronology for Retreaded Tire Recall 18T002**

In 2017, HEXPOL Rubber Compounding ("HEXPOL") contacted Les Schwab Warehouse Center, Inc. in Prineville, Oregon and proposed a supply of AZ gum rubber compound to Les Schwab as adhesive for use in the retread process. At that time, Les Schwab advised HEXPOL that Les Schwab's retread facilities run AZ gum rubber with a 10 minute cure package for retread steel-belted, radial truck tires.

In October 2017, HEXPOL delivered two shipments of gum rubber to Les Schwab totaling 51,150 lbs. The HEXPOL AZ gum rubber was delivered directly to the Prineville, Oregon retread facility. Portions of that original 51,150 lbs. were distributed by the Les Schwab Prineville facility to the Les Schwab Spokane, Washington and the Rupert, Idaho retread facilities. Spokane, Washington received 6,107 lbs. of the original 51,150 lbs. and Rupert, Idaho received 12,208 lbs. No further HEXPOL gum rubber was received by any Les Schwab facility at any time.

The HEXPOL AZ gum rubber was first used in the tire retread process for start of production week 42 of 2017 in the Les Schwab Prineville, Oregon facility (week of October 15, 2017). Each tire retread uses approximately 2.85 lbs. of gum rubber. Thus, the 51,150 lbs. of gum rubber supplied a maximum of 17,947 tires, assuming zero waste. The HEXPOL gum rubber was used in the manufacturing process at these Les Schwab retread facilities for up to 8 weeks (production week 50). During this time, the Les Schwab facilities also used gum rubber previously supplied by other suppliers in the retreading process. The gum rubber provided by other suppliers was never mixed on a single tire retread. When the HEXPOL gum rubber ran out at each facility, the gum rubber from other suppliers was used exclusively. The Les Schwab retread facilities previously and subsequently used gum rubber in the retread process from the other suppliers without any bonding or curing problems.

At the Prineville facility on approximately October 24, 2017, a tire in the retread process did not receive a smooth application of gum rubber on the tire casing. To correct this application, before any tire tread was placed on the casing, the applied HEXPOL gum rubber was subjected to Les Schwab's standard curing process for retread, steel-belted radial truck tires. The objective was to completely harden the misapplied gum rubber on this single tire to allow for full buffing of any gum rubber before reapplication and completion of the retread process. Thus, the tire casing with HEXPOL gum rubber, without tread, was submitted for curing. After removing the casing

from the curing chamber, the gum rubber on this tire had not fully hardened. This was unexpected and HEXPOL was contacted for an explanation. HEXPOL claimed “reversion” had occurred. HEXPOL explained the cure package for its gum rubber (uninsulated by tread) was only 5 minutes, so when it was exposed to direct heat for longer, the gum rubber began reverting back to a softer state. HEXPOL explained that “reversion” does not occur during the normal retread process because the tread in place over the gum rubber provides insulation and reduces the direct heat on the gum rubber. Based on HEXPOL’s analysis and assurance, Les Schwab continued tire retread production with the HEXPOL gum rubber.

On December 13, 2017, a retreaded tire was returned (DOT-R number RNZK 4817RS) to the Les Schwab Prineville facility for tread issues. Upon inspection, the tire had lost a piece of tread. There had been no complete tread separation and no loss of control, accident, property damage, or other on-road incident. The cause of the missing tread was unknown at that time.

During the following months, additional retreaded tires produced at all three locations were returned to Les Schwab exhibiting missing tread (approximately 200 tires were returned in total). None of the returned tires had experienced complete tread separation or detachment and none had caused any loss of control, accidents, property damage or any other on- road incident. The new usage of HEXPOL AZ gum rubber was the only variable that had changed in the retread process. Investigation revealed the tires returned with missing pieces of tread had been retreaded during the weeks Les Schwab used HEXPOL AZ gum rubber.

HEXPOL analyzed the issue and confirmed its AZ gum rubber cure package was neither five or ten minutes but rather an unspecified longer period of time. As such, the gum rubber would not cure if ran through Les Schwab’s ordinary processes because the run time in the curing chambers was not long enough. Thereafter, Les Schwab requested an independent analysis to verify HEXPOL’s conclusion. On February 18, 2018, the independent analysis confirmed the HEXPOL gum rubber had a cure package of 13.9 minutes.

Initially, the additional curing time above a 10 minute cure package was not deemed significant by the Prineville facility since tires were commonly left in the curing chambers for much longer than the ordinary process required. Thus, many of the tires retreaded with HEXPOL gum rubber would receive more than enough cure time up to and beyond what was required for a 13.9 minute cure package. Indeed, the low rate of tire return was consistent with complete gum rubber curing on most of the tires retreaded with the HEXPOL gum rubber. Nevertheless, on

March 8, 2018, the Prineville facility reported the results of both the HEXPOL and the independent analysis to Les Schwab senior management.

On March 9, 2018, Les Schwab began the recall process and notified all Les Schwab Tire Centers (“dealers”) of the issue, instructing them to quarantine any inventory of retread tires produced during the affected weeks.[1] Ultimately, Les Schwab included over 40,000 tires in its recall scope despite understanding less than 18,000 tires in that scope would have been made with HEXPOL AZ gum rubber. Further, as noted above a large percentage of those tires made with HEXPOL AZ gum rubber are expected to have cured properly due to curing time above what was required for a 13.9 minute cure package. Therefore, it is expected a significant percent of the recall population will be unaffected by the recall condition.

After investigation to gather the required information, Les Schwab submitted its initial report to NHTSA pursuant to 49 CFR § 573.6 on March 15, 2018. To date, there has been no reported loss of control incidents, accidents or property damage related to the potentially affected retreaded tires. There have been no similar issues for retreaded tires beyond those manufactured using HEXPOL AZ gum rubber.

---

[1] Les Schwab originally believed the end week for potential use of HEXPOL gum rubber was week 48, 2017. Continued investigation revealed week 50, 2017 was the appropriate end of production. Les Schwab dealers were notified of this change in production end date and provided a revised DOT-R range on March 15, 2018 and March 23, 2018.