



Neutral Body Wash Detergent

1 Scope

1.1 Material Description. The material is intended to be a neutral detergent which will efficiently remove dirt and haze from vehicle bodies. This detergent must not damage painted surfaces or have a permanent adverse effect on rubber parts or sealer applications with which it may come in contact.

1.2 Symbols. Not applicable.

1.3 Applicability. The material is applied prior to the Electrocoat process to remove dirt and other residues from vehicle bodies.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

ASTM D92 ASTM D820 ASTM E70

2.2 GM Standards/Specifications.

GMW3059 GMW14444 GMW16853 GMW17405

3 Requirements

3.1 Physical and Chemical Properties. The material shall consist of a concentrated detergent with the following characteristics:

3.1.1 pH of the full strength detergent @25 °C (ASTM E70) 6.5 to 9.5.

3.1.2 Total phosphorus content must not exceed 8.70% (ASTM D820).

3.1.3 Organic active constituents must be at least 15% by weight (ASTM D820). This percentage is obtained by subtracting the ethyl alcohol insoluble weight percent of the material from the total weight percent of the oven-dried residue.

3.1.4 Flash Point (ASTM D92) 100 °C minimum.

3.2 Emissions Testing of Interior Materials and Parts. For all Code E designated parts per GMW14444, reference GMW16853 for emissions testing of interior materials and parts.

3.3 Performance Requirements.

3.3.1 Exterior Paint Systems. This detergent (diluted 10 parts water to 1 part test material) shall not have any effect on the currently approved paint systems when test drops are applied at 25 °C and 50% relative humidity (RH) for 30 minutes. In addition, the material must not cause softening, significant color change, or etching when drops are applied to test panels of the currently approved paint systems and dried at 60 °C.

3.3.2 Effect on Rubber. This detergent (diluted 10 parts water to 1 part test material) shall not attack windshield wiper blades after 4 h soaking in the cleaner followed by at least 4 h drying at 60 °C. Fifty millimeters (50 mm) lengths of wiper blades must show less than 1% change in length and a 3% change in weight. In addition, the rubber must not exhibit a change in appearance or durometer.

3.3.3 Staining. Drops of the material (diluted 10 parts water to 1 part test material) that are placed on:

1. Anodized and sealed aluminum,
2. Chrome plated hardware, and
3. Hardtop material,

then dried at 60 °C must rinse off without staining.

3.3.4 Cleanability. The detergent must remove polishing compound, filler (from partially dissolved sealer), and other residues from the body as determined in a plant tryout.

3.3.5 Mixing. The detergent must be a water soluble concentrate which can be readily mixed in a 10 to 1 ratio. Typical plant applications will be at further dilutions of from 200 to 2000 to 1 ratios.

3.3.6 Functional Requirements. This material must perform satisfactorily in the specified production application. Failure to perform satisfactorily shall constitute reason for rejection regardless of compliance to the other requirements of this specification.

3.3.7 Source Shipment Responsibility. It will be the responsibility of the supplier to ensure that the material is not exposed to temperatures during shipment which would cause the material to fail to meet any of the requirements of this specification.

4 Manufacturing Process

All shipments of material or parts under contract or purchase order manufactured to this specification shall be equivalent in every respect to the initial samples approved by Engineering. There shall be no changes in either formulation or manufacturing processes permitted without prior notification and approval by Engineering. Lack of notification the supplier constitutes grounds for rejection of any shipment. While samples may be taken from incoming shipments and checked for conformance to this specification, the supplier shall accept the responsibility for incoming shipments meeting this specification without dependence upon purchaser's inspection. In addition, the supplier shall be responsible for submitting a Certificate of Analysis with each batch of material arriving at a plant. This document shall be prepared and provide data in accordance with the requirements detailed in GMW17405.

5 Rules and Regulations

5.1 Legal Regulations. All materials must satisfy applicable laws, rules, regulations and recommendations valid in the country of usage.

5.2 Language. In the event of conflict between the English and domestic language, the English language shall take precedence.

5.3 Inspection and Rejection. Samples of components or materials released to a GM material specification shall be tested for conformity with the requirements of this material specification and approved by the responsible Engineering department prior to commencement of delivery of bulk supplies.

A new approval must be received for any changes, e.g., properties, manufacturing process, location of manufacture, etc. If not otherwise agreed, all testing and documentation normally required for initial release must be completed.

It is the responsibility of the supplier to inform the customer in a timely manner, without solicitation, and to include documentation of all modifications of materials and/or processes and to apply for a new release.

5.4 Material Safety Data Sheets/Safety Data Sheets (MSDS/SDS). For new product submissions, or when a change in chemical composition of an existing product has occurred, a complete copy of the Material Safety Data Sheet/Safety Data Sheet must be submitted in compliance with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) requirements or other country-specific MSDS/SDS requirements.

5.5 All materials supplied to this standard must comply with the requirements of the International Material Data System (IMDS) and GMW3059, **Restricted and Reportable Substances**.

6 Approved Sources

Materials supplied to this specification must be approved by General Motors.

The appropriate GM Materials Engineering Department (Product Engineering or Manufacturing Engineering) must confirm materials as meeting the requirements of this specification. Only materials/sources listed in the GM Materials File (MATSPC) under this standard number have been qualified by Engineering as meeting the requirements of this standard.