



Grease, Calcium, No. 2, Aerosol

1 Scope

1.1 Material Description. This specification covers a National Lubricating Grease Institute (NLGI) Number 2, calcium soap thickened, multi-service grease. The grease is dispensed as an aerosol, which congeals to a grease. Initial use is in a blind access condition to lubricate a door hinge.

1.2 Symbols. Not applicable.

1.3 Applicability. This grease is used to lubricate door hinges where visual access is not available.

2 References

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

2.1 External Standards/Specifications.

ASTM D88	ASTM D566	ASTM D1264	ASTM D1743
ASTM D445	ASTM D972	ASTM D1742	

2.2 GM Standards/Specifications.

GMW3059

2.3 Additional References.

TMC003 Material Safety Data Sheet guidance documents (available at www.gmsupplypower.com).

3 Requirements

3.1 Physical Properties of Grease. See Table 1.

Table 1: Physical Properties

Properties	Values	Methods
Color	Beige	Visual
Appearance	Smooth	Visual
Dropping Point	132 °C Minimum	ASTM D566
Oil Separation	2.0 mL Maximum	ASTM D1742
Bearing Corrosion	Pass – No Staining	ASTM D1743
Evaporation Loss: 22 h at 100 °C	2.0% Maximum	ASTM D972
Water Washout at 38 °C	2.0% Maximum	ASTM D1264

3.2 Base Oil Properties. See Table 2.

Table 2: Viscosity Requirements

Properties	Values	Methods
Saybolt Viscosity	475 SUS to 525 SUS At 38 °C	ASTM D88
Kinematic Viscosity	92 cSt to 98 cSt at 40 °C	ASTM D445

SUS = Saybolt Universal Seconds

3.3 Quality. The material shall be uniform and free from grit, water, and other injurious impurities. It shall be stable during use from -29 °C to 121 °C.

4 Manufacturing Process

Not applicable.

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. 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 by 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.

The series of tests used to approve each batch of product along with acceptance limits will be agreed upon by the purchaser and seller. The laboratory providing the certificate of analysis must also participate in a proficiency testing program (round robin) that is approved by the Fuels, Fluids, and Lubricants Global Subsystem Leadership Team (GSSLT) or designate. The Fuels, Fluids, and Lubricants GSSLT or designate must receive copies of the proficiency testing reports directly from the test program administrator.

5.4 Initial Source Approval. No shipment shall be made by any supplier until representative initial production samples have been approved by the Fuels, Fluids, and Lubricants Global Subsystem Leadership Team or designees meeting the requirements of this specification.

5.5 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. In addition, product MSDS/SDS submissions must be in compliance with specific country General Motors TMC003 Material Safety Data Sheet/Safety Data Sheet guidance documents where available.

5.6 All materials supplied to this standard must comply with the requirements of the International Materials Database System (IMDS) and GMW3059, **Restricted and Reportable Substances for Parts**.

6 Approved Sources

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

The appropriate GM Materials Engineering department(s) must confirm material as meeting the requirements of this specification. Any test data sheets of material submitted to General Motors for such confirmation (e.g., during Production Part Approval Process (PPAP)) under this material specification must list all properties and must apply corresponding test methods of this material specification.