



## **Global Reference Fluids for Material Compatibility Testing**

### **1 Scope**

**1.1 Material Description.** This standard provides a global list of reference fluids defined by global GM fluids experts. This list of fluids was defined to serve as reference fluids for material compatibility testing of elastomer and plastic materials for each GM region.

Information of mandatory fluid sources and contact is also given in Table A1, Appendix A.

**1.2 Symbols.** Not applicable.

**1.3 Typical Applications.** Elastomer and plastic Material Specifications will refer to this standard for selection of reference fluids for material compatibility testing. This standard will be revised frequently in case of future fluid developments that would have a relevant effect on elastomer and plastic materials.

### **2 References**

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

#### **2.1 External Standards/Specifications.**

None

#### **2.2 GM Standards/Specifications.**

|            |          |          |
|------------|----------|----------|
| 9986284    | GMW3420  | GMW16177 |
| B 040 0420 | GMW14334 | GMW16444 |
| GMW3059    | GMW14914 |          |
| GMW3356    | GMW16072 |          |

#### **2.3 Additional References.**

TMC003 Material Safety Data Sheet guidance documents (available at [www.gmsupplypower.com](http://www.gmsupplypower.com)).

### **3 Requirements**

Table of global reference fluids for elastomer and plastics material compatibility testing, see Table A1, Appendix A.

### **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.

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**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 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.

## 7 Notes

### 7.1 Glossary.

### 7.2 Acronyms, Abbreviations, and Symbols.

|              |                                                                        |
|--------------|------------------------------------------------------------------------|
| <b>GHS</b>   | Globally Harmonized System of Classification and Labeling of Chemicals |
| <b>GSSLT</b> | Global Subsystem Leadership Team                                       |
| <b>MSDS</b>  | Material Safety Data Sheet                                             |
| <b>PPAP</b>  | Production Part Approval Process                                       |
| <b>SDS</b>   | Safety Data Sheet                                                      |

## 8 Coding System

This standard shall be referenced in other documents, drawings, etc., as follows:

Examples:

Brake fluid per GMW16955 Code A1

Engine oil per GMW16955 Code F

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