MANUFACTURING OF IPDI AND R45M
PERFORMANCE WORK STATEMENT

1.0 Scope of Work

The requirements in this document contain the information necessary to provide Curing Agent, Isophorone Di-Isocyanate and HTPB R45M.

2.0 Applicable Documents

2.1.1 General Specifications

American National Standards Institute (ANSI)/National Conference of Standards Laboratories (NCSL) Standards:

ANSI/NCSL Z540.3	Requirements for the Calibration of Measuring and Test Equipment

Department of Defense Specifications

MIL-C-85498(AS), Type II	Curing Agents, Dimeryl-Di-Isocyanate and Isophorone Di-Isocyanate
MIL-STD-129	Marking for Shipment and Storage
WS 20700	HTPB R45M

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International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC) Standards:

ISO 9001	Quality Management Systems
ISO/IEC 17025	General Requirements for the Competence of Testing and Calibration Laboratories

Society of Automotive Engineers (SAE) Standards:

SAE AS6174	Counterfeit Material; Assuring Acquisition of Authentic and Conforming Material

2.1.2 Conflicting Document Requirements

If there are any conflicts between specifications, drawings, or requirements listed herein, the contractor shall notify the Contracting Officer (KO) and the Technical Point of Contact (TPOC), in writing for interpretation, clarification, and resolution.

3.0 Requirements

3.1 General

The Contractor shall fabricate, inspect, test, and deliver 80 lbs of conditioned Isophorone Di-Isocyanate (IPDI) in accordance with MIL-C-85498(AS), Type II and 820lbs of conditioned HTPB R45M in accordance with WS 20700 Type I. Deliverables shall be packaged and ready for use. The Contractor shall provide, design, and fabricate all necessary tooling to manufacture, test, and inspect the deliverables, as well as provide data as detailed herein.

3.1.1 Deliverable Lot Homogeneity

Each material shall be made from one single homogeneous lot. A single continuous production run or batch may be used to meet several deliverable line items.

3.1.2 Safety Data Sheet

The Contractor shall provide a SDS in accordance with DI-SAFT-82112 per CDRL A001 for each deliverable lot.

3.2 Test and Inspection

The Contractor shall maintain and control processes to inspect and test deliverables as described in this PWS. These processes should cover all phases from the ordering of the material to the Government acceptance of the finished product.

3.2.1 Product Certification

The Contractor shall submit a Certificate of Compliance in accordance with DI-MISC-82386 per CDRL A002 to accompany the shipment of each production lot, as required by Table 1. The certificate shall state compliance of the material with its respective drawing or specification, and contract/order requirements. The certificate shall as a minimum state the company name, contract/order number, drawing or specification number, and date.

The Contractor shall submit a certificate of analysis/test in accordance with DI-MISC-82386 per CDRL A002 showing the production material has been sampled and/or tested and found to be within the minimum requirements of the specification/drawing/contract, as required by Table 1. The certificate shall be forwarded to the Government; one (1) copy to accompany the shipment (in the packing list envelope), and one (1) copy mailed to arrive at time of receipt of the shipment (mark the certificate to the attention of the designated POC above). Each certificate must be traceable to the material covered by the certificate.

Both Certificates of Analysis and Compliance shall state, above the signature of a legally authorized representative of the company, the following:

"This certification concerns a matter within the jurisdiction of an agency of the United States and making a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code 1001."

Table 1: Certification Requirements

Order	Test	Requirement		Certificate
		Specification	Location	
MIL-C-85498(AS) Type II	Chem & Phys Properties	MIL-C-85498(AS), Type II	Para 3.2	Analysis
	Workmanship	MIL-C-85498(AS), Type II	Para 3.6	Compliance
WS 20700 Type I	Chem & Phys Properties	WS 20700, Type I	Para 3.2	Analysis
	Workmanship	WS 20700, Type I	Para 3.4	Compliance

3.3 Quality Control

3.3.1 Quality System and Quality Control Processes

The Contractor shall maintain a quality system which adheres, at minimum, to the requirements of Para. 4.5. ISO 9001:2015 standards.

The Contractor quality management system shall ensure products are in compliance with the applicable drawings, specifications, and contract. The quality management system shall outline processes to identify, record, and disposition nonconforming material or other characteristic discrepancies for the entire duration of this contract. Procedures, planning, and all other relevant documentation and data which comprise the quality management system, if requested, shall be made available to the Government for review.

3.3.2 Calibration of Measuring and Testing Equipment

Calibration of measuring and testing equipment shall, as a minimum, adhere to the requirements of either ANSI/NCSL Z540.3 or ISO/IEC 17025.

3.3.3 Acceptance of Product

Final acceptance of production deliverables will be determined by Government sample testing and certification verification at Government destination for each deliverable line item. The Government shall complete sample testing within 30 days of receipt of all documentation and deliverables relevant to the line item in question.

The Government shall prepare a 1-quart composite sample from deliverable containers. The sample shall meet the requirements of Table 2. The Government reserves the right to perform additional testing to verify acceptability, which may include testing at other facilities.

Table 2: Government Acceptance Test Requirements

	Test	Requirement	
		Specification	Location
Order	Physical and Chemical Properties	MIL-C-5498(AS), Type II	Para 3.2
	Workmanship	MIL-C-85498(AS), Type II	Para 3.6
	Physical and Chemical Properties	WS 20700, Type I	Para 3.2
	Workmanship	WS 20700, Type I	Para 3.4

3.3.4 Government-Identified Nonconformity Reporting Procedures

The Government shall alert the Contractor to any nonconforming deliverables within one (1) working day of identifying the nonconformity. The Contractor shall respond with their recommended disposition on the deliverables within one (1) working day.

3.4 Packing and Shipping

The Contractor shall be responsible for packing, packaging, and marking of deliverables in accordance with MIL-C-85498(AS), Type II , Para 5.1 and Para 5.2 and WS 20700, Type I, Para 5.1 and Para 5.2 to prevent any potential damage during transport. Specifically, IPDI will be packaged in 40-lb cans, R45M will be packaged in 410lb drums and labeled with at minimum the contract number, mil spec number, and lot number.

3.5 Counterfeit Material

The Contractor shall maintain a counterfeit material prevention program in accordance with SAE AS6174A, or comparable. The Contractor shall notify the Contracting Officer (KO) if material cannot be obtained from an authorized supplier.

4.0 Deliverables

The Technical Point of Contact and Contracting Officer (KO) for this contract will approve all deliverables as specified. The following Certificates shall include the signature of the Contractor's representative authorized to make such certification.

Table 3: CDRL Deliverables

CDRL	Spec	Section	Title
A001	DI-SAFT-82112	3.1.2	Safety Data Sheet (SDS) Report
A002	DI-MISC-82386	3.2.1	Certificate Data Report (COA/COC)

4.1 Deliveries

The Contractor shall notify the Contracting Officer 30 days in advance if the Contractor cannot meet the contract delivery schedule.

The Contractor shall be responsible for coordinating and shipping all the units below to the required destination. Lead times listed below represent the maximum allowable delivery timeframe; early deliveries are permitted.

Table 4: Material Deliverables

Item	Year	Chemical	Qty	UOI	Lead Items
0001	Base	IPDI	80	LBS	6 wks ARO
0002	Base	R45M	820	LBS	6 wks Aro

After receipt of order (ARO)

Delivery address provided below: (Provided once awarded)

Indian Head, MD 20640