

Description	Method	Net Price
PRODUCT CERTIFICATION		
Daimler Chrysler Specifications		
Phenols		call
Total Chromium		call
Hexavalent Chromium		call
Polychlorinated Biphenyls (PCBs)		call
Products for this specification include paints, inks, dyes, oils, lubricants, greases, industrial fluids, janitorial chemicals, and other industrial specialty products used in Daimler Chrysler's manufacturing processes.		
PRODUCT DEFORMULATION / CERTIFICATION		
Alkaline cleaners		<i>Please Inquire</i>
Acid cleaners		<i>Please Inquire</i>
Rinsing products		<i>Please Inquire</i>
Conversion coating products		<i>Please Inquire</i>
Paints and coatings		<i>Please Inquire</i>
Surfactants		<i>Please Inquire</i>
Janitorial Cleaners		<i>Please Inquire</i>
Cutting Oils		<i>Please Inquire</i>
Lubricants		<i>Please Inquire</i>
Greases		<i>Please Inquire</i>
Plating Chemicals		<i>Please Inquire</i>
Purge Solvents		<i>Please Inquire</i>
General Motors: LS2 Lubricant Testing		<i>Please Inquire</i>
Ford Motor Company: Pre-Paint Cleanability		<i>Please Inquire</i>
Dana Corporation: Product Approval Testing		<i>Please Inquire</i>
Surface Cleanliness Testing per various OEM specs		<i>Please Inquire</i>
METALWORKING FLUIDS		
Aerobic Bacteria Plate Count		call
Anaerobic Bacteria Plate Count		call
Yeasts and Molds		call
pH		call
Refractive Index		call
Sediment (%) by Centrifuge		call
Titration, Free Alkalinity		call
Titration, Total Alkalinity		call
Tramp Oil (%)		call
Viscosity @ 100 deg F (Kinematic)		call
Viscosity @ 210 deg F (Kinematic)		call
Viscosity Index (Calculation or ASTM Tables)		call
Percent Water (Karl Fischer)		call
Cast Iron Chip Test		call
Falex Lubricity Test (pin and vee)		call
Humidity (Up to 96 hours)		call
Humidity (Each hour beyond 96 hours)		call
First Metal by ICP/MS		call
Each Additional Metal		call
Fatty Acid (Sap#)		call
Total Acid Number (TAN)		call
Total Base Number (TBN)		call
Particle Size and Distribution by SEM		call
Particle Size and Distribution by Laser Scatter (ISO4406)		call
Total Suspended Solids		call
Percent Magnetic Fines		call

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METALWORKING FLUIDS (continued)		
Active Sulfur		call
Total Sulfur		call
Total Chlorine		call
Copper Corrosion		call
Filter Ability		call
Seal Compatibility		call
Foam		call
Foam by ASTM D892		call
Emulsion Stability		call
Tramp Oil Rejection		call
Four Ball Wear		call
Biostability		call
Saponification number (D94)		call
Aluminum Corrosion (F1110)		call
Fat/Ester Content (D128)		call
Fat Content (FTIR)		call
Coefficient of Friction (D5183)		call
Wear and Additive Metals (D5185)		call
CONVERSION COATING & PLATING BATHS		
pH		call
Free Alkalinity		call
Total Alkalinity		call
Free Acid		call
Total Acid		call
Anions (each)		call
Total Anions (Cl, F, NO3, NO2, PO4 and Sulfate)		call
Cations: First Metal by ICP/MS		call
Each Additional Metal		call
SEM with One Photomicrograph		call
SEM, Additional Photo on Same Part		call
EDS Scan in Addition to SEM		call
SEM / EDS Evaluation		call
EDS Scan without SEM Photomicrograph		call
EDS Scan, Additional on Same Part		call
Coating Weight		call
Percent Brightener by UV/VIS		call
Catalyst Index (% Fluoride)		call
Percent Nickel Chloride / Nickel Sulfate		call
Percent Boric Acid by Titration		call
Percent Zinc by Titration		call
Percent EDTA by Titration		call
Trace Metal Contaminants, each		call
Functional Additives by UV/VIS, each		call
Hexavalent Chromium		call
Total Chrome by ICP/MS		call
Hexavalent Chromium Part Stripping		call
Percent Chromic Acid by Titration		call
Percent NaOH by Titration		call
Percent Na2CO3 by Titration		call

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PAINTS & COATINGS

Film Thickness by Microscopy		call
Flash Point (Pensky-Marten's Closed Cup)		call
Humidity (up to 96 hours)		call
Humidity (each hour beyond 96 hours)		call
Salt Spray (up to 96 hours)		call
Salt Spray (each hour beyond 96 hours)		call
Cyclic Corrosion Testing		call
Thermal Shock/Exposure		call
Chemical Exposure		call
Non Volatile (percent solids)		call
pH		call
Pigment Characterization by EDS		call
Particle Size and Distribution by SEM		call
Solvent percent		call
Solvent Characterization by GC/MS		call
Weight per Gallon		call
Volatile Organic Emissions (VOC's per EPA 24)		call
Metallographic Prep, per hour		call
Paint Stripping		call
Phosphate Stripping		call
Galvanized Stripping		call
Paint Defect Evaluation, Sample Mount (Cold Mount)		call
Paint Defect Evaluation, per hour		call
Coating Weight (Conversion Coating)		call
Water Content by Karl Fischer		call
Product Evaluation per Automotive, Military and/or ASTM Specs on Request		call
Hexavalent Chromium		call
Total Chromium		call
Hexavalent Chromium (Part Stripping)		call
Resin Characterization by FTIR		call

METALLURGICAL & MATERIALS

Chemistry (OES)		
Alloy Steels	ASTM E415	call
Aluminum Alloys	ASTM E1251	call
Carbon and/or Sulfur	Leco Combustion	call
Carbon Steels	ASTM E415	call
Stainless, Tool & High Alloy Steels	ASTM E327, Leco	call
Iron Casting	ASTM E403, Leco	call
Alloy Grade Identification		Up To call

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Mechanical Properties		
Proof Load	ASTM F606	call
Tensile Load	ASTM F606	call
Tensile Strength, Yield Strength, Elongation, Reduction of Area	ASTM E8, A370, B557, SAE J1216	call
Machining for Tensile, bar machining	SAE J416	call
Charpy Impact	ASTM E23, A370	call
Charpy Impact Temperature Conditioning - Cooling		call
Charpy Impact Temperature Conditioning - Heating		Up To call
Charpy Impact Specimen Prep per specimen	ASTM E23, A370	call
Sectioning and Dissassembly		Up To call
Physical Properties		
Brinell Hardness	ASTM E10	call
Brinell Hardness - 5 indentations	ASTM E10	call
Rockwell Hardness - 5 indentations	ASTM E18	call
Hardness surface preparation		Up To call
Materials Characterization		
Microhardness (Knoop, Vickers)	ASTM E384	call
Microhardness (Knoop, Vickers) - traverse	ASTM E384	call
Energy Dispersive X-ray Analysis (per scan)	ASTM B748, E20(mod), E986	call
Failure Analysis (per hour)		call
Fractography (per hour)		call
Micro Etching and Feature Examination	ASTM E340, A561, A604, E381	call
Macro Etching and Feature Examination	ASTM A561, E340, E381, A604	call
Metallography		
Preparation / Mount	ASTM E3	call
Preparation / Mount - Cold Mount and Soft Materials	ASTM E3	call
Case Depth	SAE J423	call
Inclusions	ASTM E45, SAE J422	call
Decarburization	ASTM E1077, SAE J419	call
Grain Size	ASTM E112	call
Percent Nodularity	ASTM A247, SAE J434	call
Plating / Coating Thickness	ASTM B487	call
Percent Spheroidization		call
Photomicrograph - Optical Microscopy	ASTM E883	call
Photomicrograph -- SEM	ASTM B748, E20(mod), E986	call
Photomicrograph -- SEM, additional		call
Microhardness Traverse	ASTM E384	call
Metallographic Prep, per hour		call

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SAMPLE PREPARATION		
Bench Work per hour		call

HOURLY RATES		
Technician		call
Chemist / Engineer		call
Senior Chemist / Senior Engineer		call
Scientist / Professional Engineer		call
SED / EDS and Electron Microscopist		call
GC/MS and Mass Spectroscopist		call
ICP or AA and Operator		call
Bench Work (Wet Chemistry)		call
IC, GC or Optical Microscopy		call
Mileage Rate for Field Work or Off-Site Meetings		call
Data Review / Reporting		call
Archive Retrieval		call
Consulting Fee (Scientist/Engineer)		call

A data review/reporting fee will be assessed for all investigative projects invoiced in 20 minute increments at a rate of \$150 per hour

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