

COUNTY OF ROCKLAND
Department of General Services
Purchasing Division

Contract Award Notification

Title: **Oils-Engine Oil, Gear Oil, Transmission Fluid, Diesel Exhaust Fluid and Antifreeze**

Contract Period: December 16, 2024 through June 15, 2025 w/2-6 month options
Ext thru December 15, 2025 w/ 6-month option ext thru 6/15/26

Original Date of Issue: December 26, 2024

Date of Revision: 12/31/25

BID No: **RFB-RC-2024-091**

Catalog: **Facilities**

Authorized Users: United States Agencies, Other States & Political Subdivisions Therein,
Local Governments, School Districts & Non-Profit Agencies

Address Inquiries To:

Name: Robert Poole
Title: Purchaser I
Phone: 845-364-3808
Fax: 845-364-3809
E-mail: pooler@co.rockland.ny.us

Description

This contract is for various Engine Oil, Gear Oil, Transmission Fluid, Diesel Exhaust Fluid and Antifreeze.

Please Note:

For departments using this bid, make sure that you receive SDS sheets with all orders. To vendors, please make sure to send the SDS sheets with all orders.

Contract #	Vendor Number	Contractor & Address	Telephone No.
BID 24-091	0000019579	Lubenet LLC 126 Scott Avenue Brooklyn, NY 11237 Contact: Leonard Roz mrumore@dashmotoroil.com	800-403-0011/ FAX: 800-952-8281
BID 24-091-A	0000028068	Lube Squad NY LLC 1 Goshen Turnpike Bloomingburg, NY 12721 Contact: Chris Roberts chrisr@lube-squad.com	845-733-6731
BID 24-091-B NO LONGER VALID SEE BELOW FOR NEW COMPANY NAME	0000024486	PetroChoice LLC 640 Freedom Business Center Drive King of Prussia, PA 19406 Contact: Laura Semel lsemel@petrochoice.com	267-658-9309
BID 24-091-C	0000030049	Moove NA Distribution Holdings Formerly PetroChoice 933 First Ave King of Prussia, PA 19406 Contact: Laura Semel lsemel@petrochoice.com	267-658-9309

COUNTY OF ROCKLAND DGS – PURCHASING DEPARTMENT BLDG. A, 2ND FLOOR, 50 SANATORIUM ROAD POMONA, NY 10970 TELEPHONE NO.: 845-364-3820 FAX NO.: 845-364-3809							
LINE NO.	DESCRIPTION	ITEM NUMBER	EST. QTY.	PACKAGE	UNIT PRICE	VENDOR	BRAND NAME AND/OR PROD.
OIL FOR GASOLINE ENGINES/HEAVY DUTY/AND OR DIESEL ENGINES							
1	10W-30 ENGINE OIL, LUBENET LUBE 1030, ADVANTAGE 529 OR AN APPROVED EQUAL	40539000001	1	55 GALLON DRUM	\$329.00	Lubenet	Medallion Plus SB
2	10W-30 SYNTHETIC ENGINE OIL, NOCO FULL SYNTHETIC 10W30, COASTAL LUBRIGOLD, PENNSTAR OR AN SERVICE PRO SYNTHETIC 10w30 SVCSYN10W30D OR APPROVED EQUAL	40539000002	1	55 GALLON DRUM	\$529.00	Lubenet	Medallion Plus FS
3	10W-30 SYNTHETIC BLEND ENGINE OIL ADVANTAGE 592 OR APPROVED EQUAL	40539000007	1	55 GALLON DRUM	\$329.00	Lubenet	Medallion Plus SB
4	10W-40 ENGINE OIL, LUBENET LUBE1040, ADVANTAGE 504 OR AN APPROVED EQUAL	40539000003	1	55 GALLON DRUM	\$329.00	Lubenet	Medallion Plus SB
5	15W-40 ULS FORMULA DIESEL ENGINE OIL, ADVANTAGE 524 OR AN APPROVED EQUAL	40539000004	10	55 GALLON DRUM	\$457.89	Moove NA Distribution	Dynaplex Dezol
6	5W-20 SYNTHETIC BLEND ENGINE OIL PRIME ULTRA SYNTHETIC BLEND 5W20 31110, ADVANTAGE 590 OR AN APPROVED EQUAL	40539000005	10	55 GALLON DRUM	\$329.00	Lubenet	Medallion Plus SB
7	5W-30 SYNTHETIC BLEND OIL (DEXOS APPROVED) PRIME ULTRA SYNTHETIC BLEND 5W30, COASTAL 5W30, PENNSTAR, SERVICE PRO SVCSYNDEX5W30D OR AN APPROVED EQUAL	40539000006	7	55 GALLON DRUM	\$345.90	Moove NA Distribution	Medallion Plus SB
8	0W-20 SYNTHETIC BLEND ENGINE OIL COASTAL LUBRIGOLD, PENNSTAR, PHILLIPS SHIELD SYNTHETIC BLEND 0W20 TOS0W20D OR APPROVED EQUAL	40539000008	3	55 GALLON DRUM	\$497.00	Lubenet	Medallion Plus FS
9	0W-40 SYNTHETIC BLEND ENGINE OIL COASTAL LUBRIGOLD, PENNSTAR, PHILLIPS SHIELD SYNTHETIC BLEND 0W40 TOS0W40D OR APPROVED EQUAL	40539000015	2	55 GALLON DRUM	\$880.00	Lube Squad	Everest
10	10W MONO-GRADE ENGINE OIL GULF SUPER DUTY S-3 , NAV UNIV SAE 10W CF (PL) #400110-4 OR APPROVED EQUAL, 5 GAL PAIL	40539000009	1	PAIL	\$51.71	Moove NA Distribution	Dynaplex Dezol
	OW-16 Full Synthetic Blend Oil 55 Gallon Drum from RFQ-RC-2025-002	40539000010	1	55 GALLON DRUM	\$538.98	Lubenet	Everest

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LINE NO.	DESCRIPTION	ITEM NUMBER	EST. QTY.	PACKAGE	UNIT PRICE	VENDOR	BRAND NAME AND/OR PROD.
HYDRAULIC FLUIDS							
11	AW-32 HYDRAULIC FLUID, LUBENET AW OR AN APPROVED EQUAL, 55 GAL DRUM	40557000001	2	55 GALLON DRUM (change to 100)	\$297.53	Moove NA Distribution	Dynaplex Hydra
12	AW-32 HYDRAULIC FLUID, LUBENET AW OR AN APPROVED EQUAL, 5 GAL PAIL	40557000010	150	PAIL	\$33.79	Lubenet	Dynaplex Hydra
13	AW-46 HYDRAULIC FLUID (15w), LUBENET AW OR AN APPROVED EQUAL, 55 GAL DRUM	40557000002	7	55 GALLON DRUM	\$305.25	Lubenet	Dynaplex Hydra
14	AW-46 HYDRAULIC FLUID (15w), LUBENET AW OR AN APPROVED EQUAL, 5 GAL PAIL	40557000011	1	PAIL	\$35.00	Lube Squad	Everest
15	AW-68 HYDRAULIC FLUID, LUBENET AW OR AN APPROVED EQUAL, 55 GAL DRUM	40557000003	1	55 GALLON DRUM	\$339.94	Moove NA Distribution	Dynaplex Hydra
16	AW-68 HYDRAULIC FLUID, NAVIGARD 430169, LUBENET AW OR AN APPROVED EQUAL, 5 GAL PAIL	40557000012	1	PAIL	\$35.99	Lubenet	Dynaplex Hydra
17	CASTROL ISO LUBE 100, MOBIL SHC627, SYNGEAR 100 , LUBENET OR AN APPROVED EQUAL, 5 GAL PAIL	40557000004	1	PAIL	\$149.79	Moove NA Distribution	Dynaplex Synzol ROC903
18	CASTROL ISO LUBE 220, MOBIL SHC630, SYNGEAR 220, LUBENET OR AN APPROVED EQUAL, 5 GAL PAIL	40557000005	100	PAIL	\$166.50	Moove NA Distribution	Dynaplex Synzol ROC905
19	CASTROL ISO LUBE 68, MOBIL SHC626, SYNGEAR 68, LUBENET OR AN APPROVED EQUAL 5 GAL PAIL	40557000006	10	PAIL	\$135.94	Moove NA Distribution	Dynaplex Synzol ROC902

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LINE NO.	DESCRIPTION	ITEM NUMBER	EST. QTY.	PACKAGE	UNIT PRICE	VENDOR	BRAND NAME AND/OR PROD.
REAR END OILS							
20	80W-140 GEAR OIL IN 120 LB CONTAINERS, SUPER THREE STAR, SCOT 803, LUBENET 80W140 OR AN APPROVED EQUAL	4055700007	1	CONTAINER	\$359.00	Lubenet	Dynaplex Synzol 80W140
21	80W/90 GEAR OIL IN 120 LB CONTAINERS, SCOT 812, LUBENET 80W90 OR AN APPROVED EQUAL	4055700008	1	CONTAINER	\$217.00	Lubenet	Dynaplex Galaxy 700
22	75W/140 GEAR OIL IN 120 LB CONTAINERS, NAVIGARD 05522001, LUBENET 75W140 SYN, STARFIRE SYNTHETIC 75W140 SCTSYN75W14LSJ OR AN APPROVED EQUAL	4055700009	1	CONTAINER	\$330.00	Lube Squad	Medallion Plus
TRANSMISSION FLUIDS							
23	AUTOMATIC TRANSMISSION FLUID (MEETS OR EXCEEDS DEXRON3/MERCON5), LUBENET ATF OR APPROVED EQUAL	07529000001	2	55 GALLON DRUM	\$450.00	Lube Squad	Medallion Plus
24	AUTOMATIC TRANSMISSION FLUID (MEETS OR EXCEEDS MERCON LV) ADVANTAGE 537, NAVIGARD 411010 OR APPROVED EQUAL	07529000011	1	55 GALLON DRUM	\$619.00	Lubenet	Medallion Plus FS
25	TRANSYND ATF ADVANTAGE 301 OR APPROVED EQUAL	07529000002	1	55 GALLON DRUM	\$1,145.00	Lubenet	Castrol Transynd
26	SYNTHETIC AUTOMATIC TRANSMISSION FLUID MOBIL DELVAC, ADVANTAGE 537 OR AN APPROVED EQUAL	07529000003	1	55 GALLON DRUM	\$628.00	Lubenet	Dynaplex Synzol ATF

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LINE NO.	DESCRIPTION	ITEM NUMBER	EST. QTY.	PACKAGE	UNIT PRICE	VENDOR	BRAND NAME AND/OR PROD.
ANTIFREEZE							
27	ANTIFREEZE, DIESEL, CONCENTRATE LUBENET B-G AF, BLUE MT ANTIFREEZE CONE (DR) #BMA0B1 OR APPROVED EQUAL	07529000004	1	55 GALLON DRUM	\$362.47	Moove NA Distribution	Defendal Global
28	ANTIFREEZE, YELLOW, CONCENTRATE LUBENET YELLOW AF, SERVICE PRO COMPLETE UNIVERSAL CONCENTRATE SVCCOMP OR APPROVED EQUAL	07529000005	1	55 GALLON DRUM	\$362.47	Moove NA Distribution	Defendal Global
29	ANTIFREEZE, RED, CONCENTRATE LUBENET RED AF OR APPROVED EQUAL	07529000006	2	55 GALLON DRUM	\$379.00	Lubenet	Defendal HD ELC
30	ANTIFREEZE, ORANGE, CONCENTRATE PRIDE XL100, LUBENET ORANGE AF, OLD WORLD PEAK COOL ORANGE CONCENTRATE OLDPEAKCOOLD OR APPROVED EQUAL	07529000007	1	55 GALLON DRUM	\$379.00	Lubenet	Defendal Dex-Cool
31	ANTIFREEZE, GREEN, CONCENTRATE PRIDE 1000, LUBENET GREEN AF OR APPROVED EQUAL	07529000008	1	55 GALLON DRUM	\$335.96	Moove NA Distribution	Defendal Universal
DIESEL EXHAUST FLUID							
32	DIESEL EXHAUST FLUID, BLU DEF, KLEEN DEF OR APPROVED EQUAL	07529000009	10	55 GALLON DRUM	\$180.00	Lube Squad	Ultra Pure Brenntag
33	DIESEL EXHAUST FLUID, BLU DEF, COLONIAL DIESEL EXHAUST FLUID COLDEFEC OR APPROVED EQUAL	07529000010	1	CASE (6)	\$120.00	Lube Squad	Ultra Pure Brenntag
MISCELLANEOUS							
34	WINDSHIELD WASHER CONCENTRATE SPLASH BRAND 234755, OR APPROVED EQUAL	06097000001	2	55 GALLON DRUM	\$188.25	Moove NA Distribution	
35	BRAKE CLEANER JOHNSON 2413-55, SERVICE PRO NON CHLORINATED BRAKE CLEANER SVCSP4655D OR APPROVED EQUAL	06018000001	1	55 GALLON DRUM	\$725.00	Lube Squad	Johnson's
INDICATE METHOD OF DELIVERY			VENDOR / COMMON CARRIER (circle one)				

COUNTY OF ROCKLAND - DGS-PURCHASING
BLDG. A., 6TH FLOOR, 50 SANATORIUM RD, POMONA, NY 10970
TELEPHONE: 845-364-3820 / TELEFAX: 845-364-3809

TITLE: Oils-Engine Oils and Various Fluids

RFB-RC-2024-091

INTRODUCING THE

EMPIRE STATE COOPERATIVE PROCUREMENT ALLIANCE

The Counties of Chemung, Orange, Rockland, and Ulster (“Organizing Local Governments”), all being municipal corporations in the State of New York, have organized the Empire State Cooperative Procurement Alliance (“Alliance”) to serve all Public Participating Entities (as defined below) through the creation of a procurement cooperative to issue cooperative bids, operate and maintain an eSourcing, Contract Management and Marketplace E-Procurement System (“Solution”), and enable Alliance members to be in compliance with New York State bidding requirements, in identifying suppliers of commodities, good and services, and to realize the potential economies, including administrative cost savings.

The Organizing Local Governments of the Alliance have acted in accordance with section 119-o of the New York State General Municipal Law to cooperatively create the Alliance to fulfill their respective public and governmental purposes, needs, objectives and programs, and have additionally determined that Eligible Entities qualified shall be permitted to join the Alliance.

The Alliance entered into a multi-year agreement with mdf commerce (doing business as Periscope), whereby Periscope will provide electronic marketplace hosting and management services to enable eligible Public Participating Entities to access a central online website to view and/or shop the goods and services available from existing Alliance’s Cooperative Contracts. The central online website is referred to as “Empire Procure Connect.”

The County of Rockland officially distributes bidding documents through the Alliance’s Regional Bid Notification System via the BidNet Direct Portal. Suppliers may search for solicitation opportunities by logging into or registering with BidNet Direct using the following link:

[BidNetDirect.com](https://www.bidnetdirect.com)

When logged into BidNet Direct, search and locate the solicitation you are interested in, once selected the system will automatically transfer to the Empire Procure Connect’s portal where you can download the solicitation specifications and bid forms. Follow the instructions provided within the solicitation document to submit your quote.

QUESTIONS / HELP - Please contact BidNet Direct’s vendor support team at 800-835-4603 select option 2

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PURCHASES BY OTHER

LOCAL GOVERNMENTS, SCHOOL DISTRICTS, AND NON PROFIT AGENCIES

As per the New York State General Municipal Law, all political subdivisions of New York State are allowed to make purchases through the resulting contract(s). As per Rockland County Procurement Policy, Non Profit Agencies approved to participate in New York State's Contract Extension Program are authorized to make purchases through the resulting contract(s).

1. The County of Rockland shall make all contract award information available to other political subdivisions and non profit agencies through our website: **www.rcpurchasing.com**
2. Any other political subdivision or Rockland County non profit agency will issue purchase orders directly to vendors within the specified contract period referencing the County's contract and shall be liable for any payments due on such purchase orders; and shall accept sole responsibility for any payment due.
3. All purchases shall be subject to audit and inspection by the other political subdivisions and Rockland County non profit agencies for which the purchase was made.
4. No officer, board or agency of a county, town, village, or school district shall make any purchase through the County when bids have been received for such purchase by such officer, board or agency, unless such purchase may be made upon the same terms, conditions and specifications at a lower price through the County.
5. All Bidders shall be on notice that as a condition of the award of a County contract, the successful bidder shall accept the award of a similar contract with any other political subdivision in New York State and Rockland County non profit agencies authorized to use New York State's contracts, if called upon to do so. A listing of approved Rockland County non profit agencies is available on the Purchasing Division's website at www.rcpurchasing.com. The County, however, will not be responsible for any debts incurred by the participants pursuant to this or any other agreement.
6. Necessary deviations from the County's specifications in the award of a participant contract, whether such deviations relate to quantities, or delivery points shall be resolved between the successful bidder and the other political subdivisions and Rockland County non profit agencies.

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RFB-RC-2024-091

SPECIFICATIONS

A Virtual Pre-Bid via Microsoft Teams will be hosted on at - To Participate select the link below.

Microsoft Teams Meeting Link:

1. SCOPE

- 1.1. The intent of this bid is to purchase engine oils, gear oils, transmission fluids, antifreeze and various automotive fluids for the County of Rockland and the Rockland County Sewer District #1.
- 1.2. The County will not accept re-refined oils or products.

2. GENERAL REQUIREMENTS

- 2.1. Bidders shall submit specifications for all products bid, including information regarding make up of product, its general use, and typical physical characteristics.
- 2.2. **SDS sheet shall be submitted with all products bid.** In addition, upon award vendors shall provide SDS sheets with all deliveries.
- 2.3. All products must be labeled with the product inside the container, or it will not be accepted.
- 2.4. All drums of Motor Oil shall have the actual certification markings detailed on them and the supplier shall be able to provide their API license upon request at any time during the contract period.
- 2.5. All antifreeze products shall be Concentrate.
- 2.6. The County reserves the right to have any delivered product lab tested to verify the delivered product complies with all requirements. Any sample that does not meet the requirements shall have all remaining inventory returned for full credit and shall have their contract revoked for non-compliance with the requirements of the bid.
- 2.7. The items listed in this bid, and the quantities shown herein are for bid comparison purpose only. Actual quantities may differ from those shown. Award of this contract does not guarantee that any specific quantity of items shall be awarded. This is an as needed contract.

3. APPROVED EQUAL OR EQUIVALENT PRODUCTS

- 3.1. Bidder shall submit all catalogs and cut sheet information with their bid.
- 3.2. Bidder shall list five (5) locations where products are being used. Include Company, contact name, telephone number and which product is being used. Include the type of equipment the oil is being used on.

4. DELIVERY

- 4.1. Deliveries shall be made FOB destination between the hours of 8am and 2pm, Monday through Friday excluding holidays.
- 4.2. Vendor shall indicate on proposal pages method of delivery. By vendor or common carrier.
- 4.3. The bidder must maintain sufficient stock to ensure delivery within 3 business days of orders placed by the County.

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- 4.4. Any drums or bulk containers furnished by the vendor shall be provided and removed at no cost to the County and shall not be charged a core or deposit for drums or bulk containers.
- 4.5. Vendors shall ensure products are unloaded in the presence of a representative of the County and a receipt signature of acceptance is provided.
- 4.6. The County reserves the right to reject any product not meeting specifications or product damaged upon delivery or unloading.

5. CONTRACT PRICE ADJUSTMENTS

- 5.1. The County recognizes this product or service has a price component that may have a commodity with changing costs. The Contractor/Supplier may request a Price Adjustment no more frequently than once each quarter (3-month period).
- 5.2. A Price Adjustment request must be made in writing and include the reason for the request, documentation supporting the request (i.e., commodity increases), the current pricing, and the requested revised pricing.
- 5.3. The County will review the Price Adjustment request. If the Price Adjustment is deemed reasonable the Price Adjustment request will be accepted by written acknowledgement. If the request is not accepted the County may entirely reject the request or may counter with revised pricing. In either case the County will provide a written explanation in support of the decision.
- 5.4. The Director of Purchasing may use available indexes (e.g., CPI or PPI) to determine if the requested Price Adjustment is reasonable. Typically, a Price Adjustment that exceeds 5% will not be approved unless very unusual and significant changes have occurred in the industry.
- 5.5. In the event industry costs decline, the County shall have the right to receive, from the Contractor, a reasonable reduction in prices/pricing that reflect such cost changes in the industry. The County will make a written request to the Contractor for a Price Adjustment in writing with supporting documentation.

6. AWARD

- 6.1. Bid shall be awarded, by item, to the lowest responsible bidder(s) meeting the specified requirements.



Synthetic Blend Engine Oils

Medallion Plus® Synthetic Blend Engine Oils is a premium line of synthetic blend passenger car and light duty engine oils that contain a special blend of additives, which keep engines clean of harmful carbon deposits, varnishes and resins. With recent additive improvements, these more robust offerings are equipped to negate the destructive effects of Low Speed Pre-Ignition and provide improved Turbocharger protection by reducing turbo coking and deposits.

Medallion Plus Synthetic Blend Engine Oils also protect engines from sludge, rust and acid build-up. These oils perform efficiently in gasoline engines and are outstanding for stop-and-go taxi fleets, city delivery vehicles and public utility fleets.

PROPERTY	ASTM TEST METHOD	SAE 5W-20	SAE 5W-30	SAE 10W-30	SAE 10W-40	SAE 20W-50
Viscosity @ -30°C, cP	D-5293	4600	5800	N/A	N/A	N/A
Viscosity @ -25°C, cP	D-5293	N/A	N/A	5800	6400	N/A
Viscosity @ -15°C, Cp	D-5293	N/A	N/A	N/A	N/A	8000
Viscosity @ 40°C, cSt	D-445	47.00	62.00	63.00	99.00	150.00
Viscosity @ 100°C, cSt	D-445	8.30	10.20	10.80	14.00	18.40
Viscosity Index	D-2270	155	155	170	145	130
Flash Point, COC, °C	D-92	213	213	213	216	226
Flash Point, COC, °F	D-92	415	415	415	420	439
Pour Point, °C	D-97	-40	-40	-40	-36	-21
Pour Point, °F	D-97	-40	-40	-40	-33	-6
Color	D-1500	2.0	2.0	2.0	2.0	2.5
Gravity, °API	D-287	32.0	32.0	36.0	32.0	30.0
Sulfated Ash, %	D-874	.98	.98	.98	.98	.98
Phosphorous, %	D-4951	0.077	0.077	0.077	0.077	0.077
Zinc, %	D-4951	0.085	0.085	0.085	0.085	0.085
HT/HS, Cp	D-4683	3.20	3.22	3.12	3.70	3.9
Total Base Number (TBN)	D-2896	7.4	7.4	7.4	7.4	7.4

Meets or exceeds the following tests and requirements:

API Service Classification – SP, SN PLUS, SN, ILSAC GF-6A (5W-20, 5W-30, 10W-30)

Chrysler MS-11999, MS-12007, MS-12015, MS-6395-S

Resource Conserving (5W-20, 5W-30, 10W-30)

Ford Motor Company – WSS-M2C945-A, WSS-M2C946-A

Honda

Toyota

NOTE: Certain tests apply to specific SAE grades.

EO-08/04.20.20



Dezol Engine Oils

Dyna-Plex 21C® Dezol Engine Oils are formulated with hydrocracked base stocks exhibiting synthetic blend properties, which counteract acids, varnishes and deposits to extend engine life and maintain peak efficiency. Dyna-Plex 21C Dezol Engine Oils meet or exceed the current and past API license requirements, are backward compatible with old formulations, and provide the protection required for today's newer engines, including EGR engines.

Dyna-Plex 21C Dezol Engine Oils provide outstanding protection against scuffing of highly loaded cams, hydraulic lifters and other valve train components, resulting in reduced engine wear and increased engine efficiency and power. Dyna-Plex 21C Dezol is an economical choice for fleets of diesel engines requiring an API Service Classification CK-4.

PROPERTY	ASTM TEST METHOD	SAE 10W	SAE 30	SAE 40	SAE 10W-30	SAE 15W-40
Viscosity @ -25°C, cP	D-5293	5000	N/A	N/A	6000	N/A
Viscosity @ -20°C, cP	D-5293	N/A	N/A	N/A	N/A	6000
Viscosity @ 40°C, cSt	D-445	39.00	98.40	137.00	78.00	110.00
Viscosity @ 100°C, cSt	D-445	6.60	11.85	14.90	11.80	15.10
Viscosity Index	D-2270	125	110	110	145	145
Flash Point, COC, °C	D-92	215	243	246	215	223
Flash Point, COC, °F	D-92	420	470	475	420	430
Pour Point, °C	D-97	-36	-29	-21	-36	-33
Pour Point, °F	D-97	-33	-20	-6	-33	-27
Color	D-1500	2.0	3.0	3.0	3.0	3.0
Gravity, °API	D-287	30.3	28.6	28.0	31.0	30.0
Sulfated Ash, %	D-874	0.9	0.9	0.9	1.0	1.0
Zinc, %	D-4951	0.09	0.09	0.09	0.13	0.13
Total Base Number (TBN)	D-2896	7.3	7.3	7.3	10	10

Meets or exceeds the following tests and requirements:

API Service Classification – CK-4, CJ-4 (10W-30, 15W-40); SN, SM (15W-40); CF, CF-2 (10W, 30, 40)
Caterpillar – ECF-2, ECF-3, C-13 (10W-30, 15W-40); IM-PC (30, 40)
Mack – EOS-4.5, EO-O Prem Plus '07, EO-N, T-11, T-12 (10W-30, 15W-40)
Cummins – CES 20081, CES 20086 (10W-30, 15W-40)
Detroit Diesel – 6V92TA, 1% SASH (10W, 30, 40); DFS 93K218, DFS 93K222 (10W-30, 15W-40)
General Motors – 6.5L (RFTW) (15W-40)
Navistar (International Harvester Company) – HEUI Foam (15W-40)
Allison – C-4 Transmission test demonstrated (10W, 30)
Volvo – VDS-3, VDS-4, VDS-4.5 (10W-30, 15W-40)
Global – DHD-1 (10W-30, 15W-40)
JASO – DH-2 (10W-30, 15W-40)
Mercedes Benz – P228.3 (15W-40)
Daimler – MB 228.31 (10W-30, 15W-40)
Renault – RLD-4, RLD-3 (10W-30, 15W-40)
ACEA – E7-04, E2, E4, E9-2012 (10W-30, 15W-40)
John Deere – Plus-50
Ford – WSS-M2C171-E, WSS-M2C171-F1 (10W-30, 15W-40)

NOTE: Certain tests apply to specific SAE grades.

EO-3/06.13.17



LINE 8

Full Synthetic dexos1® Engine Oils

Medallion Plus® Full Synthetic dexos1® Engine Oils are blended with the highest quality synthesized base stocks and contain a special blend of additives that keep engines clean of harmful carbon deposits, varnishes and resins. With recent additive improvements, these more robust offerings are equipped to negate the destructive effects of Low Speed Pre-Ignition and provide improved Turbocharger protection by reducing turbo coking and deposits.

Medallion Plus Full Synthetic dexos1® Engine Oils also protect engines from sludge, rust and acid build-up. These oils perform efficiently in gasoline engines and are outstanding for stop-and-go taxi fleets, city delivery vehicles and public utility fleets.

PROPERTY	ASTM TEST METHOD	SAE 0W-20	SAE 5W-30
Viscosity @ -35°C, cP	D-5293	6000	N/A
Viscosity @ -30°C, cP	D-5293	N/A	5800
Viscosity @ -25°C, cP	D-5293	N/A	N/A
Viscosity @ 40°C, cSt	D-445	45.00	58.00
Viscosity @ 100°C, cSt	D-445	8.50	10.50
Viscosity Index	D-2270	170	170
Flash Point, COC, °C	D-92	213	213
Flash Point, COC, °F	D-92	415	415
Pour Point, °C	D-97	-40	-40
Pour Point, °F	D-97	-40	-40
Color	D-1500	2.0	2.0
Gravity, °API	D-287	36.0	36.0

Meets or exceeds the following tests and requirements:

API Service Classification – SP, SN PLUS, SN, ILSAC GF-6A

Chrysler MS-11999, MS-12007, MS-12015, MS-6395-S

Resource Conserving

Ford Motor Company - WSS-M2C945-A, WSS-M2C946-A

General Motors – dexos1 – License Numbers D325BACJ148, D32502CJ148 (0W-20)

License Numbers D325AACJ148, D32503CJ148 (5W-30)

Honda/Toyota Genuine Oils

NOTE: Certain tests apply to specific SAE grades.

EO-31/03.10.22

Technical Product Information

www.usglobalpetroleum.com

www.everestoil.com

773-376-9660

API SP

LINE 9

Premium
Performance

EVEREST

Full Synthetic SAE 0W-40 Motor Oil

EVEREST Full Synthetic SAE 0W-40 Motor Oil is a superior quality multi-grade motor oil designed with a state-of-the-art low friction additive system for maximum engine protection even under the toughest driving conditions. It outperforms conventional motor oil, reduces friction and wear at start-up and protects your engine against performance robbing sludge and varnish deposits. EVEREST Full Synthetic Motor Oil is recommended for turbo-charged and high-powered passenger car, truck, sport utility vehicle and other mobile or stationary engines.

EVEREST Full Synthetic SAE 0W-40 Motor Oil meets or exceeds American Petroleum Institute (API) SP service classification and is compatible with all prior API categories. EVEREST Full Synthetic SAE 0W-40 Motor Oil has been field tested to be comparable to most American, Asian and European manufacturers' standards including VW 502 /505, MB 229.3, and many other OEM's specifications where a full synthetic API SP motor oil is recommended.

Benefits and Applications

- Lower pour point reduces start-up wear during cold weather
- Enhanced oxidative stability, emission system and wear protection
- Full synthetic oil helps to improve fuel economy
- Superior resistance to sludge and varnish deposit formation

0W-40 Typical Characteristics - V210610

SAE GRADE	Full Syn	0W-40
API SERVICE		SP
API Gravity	ASTM D287	35.0
Flash Point, COC °C/°F	ASTM D92	201 / 394
Pour Point, °C/°F	ASTM D97	-48 / -54.4
Viscosity @ 40°C, cSt	ASTM D445	86.2
Viscosity @ 100°C, cSt	ASTM D445	15.1
Viscosity Index	ASTM D2270	185
CCS, mPa-sec °C max	ASTM D5293	6200 @ -35
Total Base No. TBN	ASTM D2896	7.9

Typical test data are average values only.
Minor variations, which do not affect performance, may occur.

API SP

VW 502 / 505, MB 229.3



HANDLING AND SAFETY INFORMATION - Refer to EVEREST (SDS) Safety Data Sheets for proper handling and safety information. Use the same care and handling as for any petroleum product. Nothing herein shall be deemed to constitute a warranty, express or implied, that said information or data are correct or that the products described are merchantable or fit for a particular purpose, or that said information, data or products can be used without infringing patents of third parties.



Hydra 1000 Heavy Duty Hydraulic Oil

Dyna-Plex 21C® Hydra 1000 Hydraulic Oils are premium anti-wear oils, which provide maximum pump life and trouble-free service. The rust and oxidation preventive capabilities of Hydra 1000, including superior demulsibility properties, make these oils rugged, even in high-output systems. These oils also feature excellent vane pump and piston pump performance, anti-foam characteristics and superior hydrolytic stability. Hydra 1000's ability to control formation of contaminants helps prevent filter blockage. The hydraulic oils also demonstrate excellent compatibility with other major brands of hydraulic oils, including the MOBIL DTE numbered series.

Dyna-Plex 21C Hydra 1000 Hydraulic Oils resist deterioration and perform at superior levels, even at high operating temperatures, pressures and speeds and low pour point ensures easy system startup in cold conditions.

PROPERTY	ASTM TEST METHOD	R&O/AW ISO 10	R&O/AW ISO 15	R&O/AW ISO 22	R&O/AW ISO 32	R&O/AW ISO 46	R&O/AW ISO 68	R&O/AW ISO 100	R&O/AW ISO 150	R&O/AW ISO 220	R&O/AW ISO 320
Viscosity @ 40°C, cSt	D-445	10.80	15.20	22.14	31.20	46.07	68.10	101.29	149.54	219.50	320.0
Viscosity @ 100°C, cSt	D-445	3.00	3.70	4.35	5.25	7.00	8.80	11.5	15.10	19.12	24.50
Viscosity Index	D-2270	140	130	103	98	109	101	100	101	98	97
Flash Point, COC, °C	D-92	200	200	199	210	216	220	232	254	238	270
Flash Point, COC, °F	D-92	392	392	390	410	420	428	450	490	460	518
Pour Point, °C	D-97	-45	-45	-42	-39	-36	-36	-24	-15	-15	-9
Pour Point, °F	D-97	-49	-49	-44	-38	-33	-33	-11	5	5	15
Color	D-1500	0.5	0.5	1.0	1.0	1.0	1.5	1.5	2.0	3.0	5.0
Gravity, °API	D-287	36.5	36.5	32.8	31.5	30.5	29.5	28.2	28.3	27.6	26.5
Turbine Oil Oxidation	D-943	3600+	3600+	3600+	3600+	3600+	3600+	3600+	3600+	3600+	3600+
Copper Strip	D-130	1b	1b	1b	1b	1b	1b	1b	1b	1b	1b
Rust Test	D-665	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Vane Pump, mgs wt loss	D-2882	12	12	12	12	12	12	12	12	12	12
Dielectric Strength, kv		35	35	35	35	35	35	35	35	35	35

Meets or exceeds the following tests and requirements:

AFNOR E 48-603
ASTM D6158 HL, HM, HMHP
B.F. Goodrich - 0152
Bosch Rexroth - RDE 90235
Fives Cincinnati - P-68, P-69, P-70 (light hydraulic oils)
Danieli - 0.000.001 Type 10 & 11
DIN - 51524, Part 1 HL, Part 2 HLP
Eaton Brochure - 03-401-2010, EFDGN-TB002-E
Eaton Vickers - I-286-S, M-2950-S, 35VQ25
FMC - High-Performance Hydraulic Oil
Ford - M-6C32
General Motors - LH-04-1, LH-06-1, LH-15-1, LS-2
ISO 11158 HL, HM
Jeffrey - #87
Lee Morse 100-1
Parker Denison - HF-0, HF-1, HF-2
Racine - Model S, variable volume vane pump
SAE MS 1004
U.S. Steel - 136, 127, 126
ZF - TE-ML 07H, TE-ML 21M

HO-3/03.04.22

Technical Product Information
www.usglobalpetroleum.com
www.everestoil.com
773-376-9660

AW-46

Premium
Performance

EVEREST®

AW-46 ANTI-WEAR HYDRAULIC OIL

Everest AW-46 Anti-Wear Hydraulic Oil is a premium quality general purpose anti-wear hydraulic fluid containing a zinc/phosphorous additive to minimize wear and provides superior thermal stability, anti-foam, rust, corrosion and oxidation protection in high-speed, high-pressure vane, gear, and piston pumps operating over a wide temperature range. It is formulated according to the ISO viscosity grade classifications to perform in extended service intervals to reduce downtime and increase time between equipment service. Everest Anti-Wear Hydraulic Oil meets, exceeds, or match the performance specifications and complies with most industrial, marine and mobile applications where service requirements are normal to moderate and long-term, heavy-duty wear protection is not critical including: Cincinnati Fives P-68, P-69, P-70, Parker Hannifin HF-0, HF-1, HF-2, Vickers 35VQ25A, Eaton/Vickers M-2950-S, I-286-S, Ford M6C32, Chrysler, General Motors LS-2, DIN 51524 Part 1 and 2, ASTM D6158, ASTM D2882, ISO 11158 and US Steel 136 specifications for stability and durability.

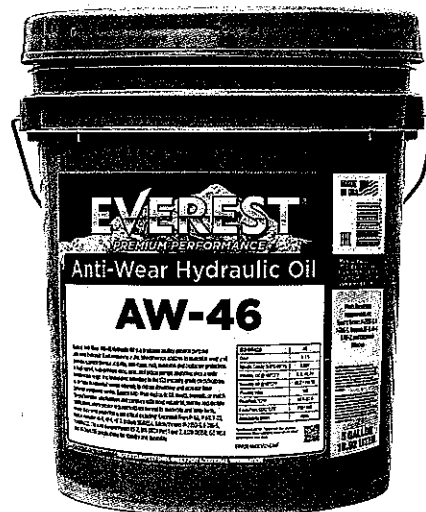
Benefits and Applications

- Excellent thermal stability
- Special additives provide sludge and deposit control, and longer service life
- Excellent rust and corrosion protection for all system components
- Provide superior water separation and demulsibility
- Excellent anti-foam protection and rapid air release
- Provides anti-wear protection for pumps, motors, valves and other hydraulic circuit components operating under high pressures and loads

AW-46 Typical Characteristics - V190626

ISO GRADE		AW-46
Color		L1
Specific Gravity @ 60°F	ASTM D287	.861
Flash Point, COC °C/°F	ASTM D92	210 / 410
Pour Point, °C/°F	ASTM D97	-42 / -43.6
Viscosity @ 40°C, cSt	ASTM D445	46.2 / 115.16
Viscosity @ 100°C, cSt	ASTM D445	7.3 / 48.70
Viscosity Index	ASTM D2270	180
CCS, mPa-sec °C max	ASTM D5293	-
Demulsibility	ASTM D1401	Pass

Typical test data are average values only.
Minor variations, which do not affect performance, may occur.



HANDLING AND SAFETY INFORMATION - Refer to EVEREST (SDS) Safety Data Sheets for proper handling and safety information. Use the same care and handling as for any petroleum product. Nothing herein shall be deemed to constitute a warranty, express or implied, that said information or data are correct or that the products described are merchantable or fit for a particular purpose, or that said information, data or products can be used without infringing patents of third parties.



Synzol ROC 900 Series

Dyna-Plex 21C® Synzol ROC 900 Series Oils are high quality rust and oxidation inhibited, synthetic oils fortified with ashless anti-wear additives for excellent gear and bearing protection. They are designed for superior performance in a wide variety of applications, including hydraulics, circulating systems, pumps, compressors, and helical, spur or worm gearboxes. Consult the equipment manufacturer for the correct viscosity and lubricant performance requirements.

Dyna-Plex 21C Synzol ROC 900 Series Oils properties:

- Excellent cold flow properties
- Rapidly separates from water
- Resists high temperatures
- Ashless, no zinc, anti-wear formula
- Shear stable
- Non-corrosive to yellow metals
- Anti-foam
- Replaces Mobil SHC 600 Series
- Does not contain heavy metals

<u>PROPERTY</u>	<u>ASTM TEST METHOD</u>	<u>902</u>	<u>903</u>	<u>904</u>
AGMA Synthetic Gear Class.		2S	3S	4S
Viscosity @ 40°C, cSt	D-445	67.75	100.48	155.77
Viscosity @ 100°C, cSt	D-445	10.27	13.63	19.35
Viscosity Index	D-2270	138	136	142
Density	D-1298	7.071	7.119	7.337
Flash Point, COC, °C (°F)	D-92	274 (496)	264 (507)	286 (547)
Pour Point, °C (°F)	D-97	-48 (-54)	-45 (-49)	-41 (-42)
Four-Ball Wear Test	D-4172			
40kg, 1200rpm, 75°C, 60 min.		.45	.45	.35
Copper Strip Corrosion Test	D-130			
250°F, 3 hrs.		1a	1a	1a
Rust Test	D-665 A&B	Pass	Pass	Pass
Foam, ml Seq I/II/III	D-892	0/0/0	0/0/0	0/0/0

Meets or exceeds the following tests and requirements:

Denison HF-0, HF-1, HF-2 (ISO 68 & 100)
Vickers M-2950-S, I-286-S (ISO 68 & 100)
US Steel – 127, 136
Lee Norse 100-1
Jeffrey No. 87
BF Goodrich 0152
Commercial Hydraulics
Cincinnati Machine P-54, P-69 (ISO 68)
AGMA 0S-7S, 0-8, 7C-8C



Synzol ROC 900 Series

Dyna-Plex 21C® Synzol ROC 900 Series Oils are high quality rust and oxidation inhibited, synthetic oils fortified with ashless anti-wear additives for excellent gear and bearing protection. They are designed for superior performance in a wide variety of applications, including hydraulics, circulating systems, pumps, compressors, and helical, spur or worm gearboxes. Consult the equipment manufacturer for the correct viscosity and lubricant performance requirements.

Dyna-Plex 21C Synzol ROC 900 Series Oils properties:

- Excellent cold flow properties
- Rapidly separates from water
- Resists high temperatures
- Ashless, no zinc, anti-wear formula
- Shear stable
- Non-corrosive to yellow metals
- Anti-foam
- Replaces Mobil SHC 600 Series
- Does not contain heavy metals

PROPERTY	ASTM TEST METHOD	905	906	907	908
AGMA Synthetic Gear Class.		5S	6S	7S	8S
Viscosity @ 40°C, cSt	D-445	232.23	334.18	484.62	685.00
Viscosity @ 100°C, cSt	D-445	25.81	32.85	42.77	54.50
Viscosity Index	D-2270	142	139	139	139
Density	D-1298	7.424	7.387	7.429	7.42
Flash Point, COC, °C (°F)	D-92	281 (538)	282 (540)	282 (540)	282 (540)
Pour Point, °C (°F)	D-97	-39 (-38)	-35 (-31)	-32 (-26)	-32 (-26)
Four-Ball Wear Test	D-4172				
40kg, 1200rpm, 75°C, 60 min.		.35	.35	.35	.35
Copper Strip Corrosion Test	D-130				
250°F, 3 hrs.		1a	1a	1a	1a
Rust Test	D-665 A&B	Pass	Pass	Pass	Pass
Foam, ml Seq I/II/III	D-892	0/0/0	0/0/0	0/0/0	0/0/0

Meets or exceeds the following tests and requirements:

US Steel – 127, 136
Lee Norse 100-1
Jeffrey No. 87
BF Goodrich 0152
Commercial Hydraulics
AGMA 0S-7S, 0-8, 7C-8C



Galaxy 700 Gear Oil

Dyna-Plex 21C® Galaxy 700 Gear Oils contain rust and oxidation additives to resist the formation of harmful contaminants, thereby reducing wear and extending the life of gears and transmissions. Special additives also prevent these oils from shearing or breaking down, even under severe load situations.

These oils perform well in both high and low temperatures and maintain outstanding viscosity stability over long periods of time. Galaxy 700 ensures limited slip performance of hypoid gears. It is also fuel efficient and provides ultimate transmission and differential protection for trucks and off-road equipment.

<u>PROPERTY</u>	<u>ASTM TEST METHOD</u>	<u>SAE 80W-90</u>	<u>SAE 80W-140</u>
Viscosity @ 40°C, cSt	D-445	176.8	242.1
Viscosity @ 100°C, cSt	D-445	18.83	26.50
Viscosity Index	D-2270	120	137
Flash Point, COC, °C (°F)	D-92	188 (370)	175 (350)
Pour Point, °C (°F)	D-97	-30 (-23)	-30 (-23)
Color	D-1500	Orange	Orange
Gravity, °API	D-287	27.4	27.1
Channel Point, °F		-30	-30
Copper Strip Corrosion (250°F)	D-130	1a	1a
Foam Test	D-892	0 ml, 3 seq.	0 ml, 3 seq.
Thermal Oxidation Stability	D-942	Pass (20%)	Pass (20%)
Timken OK Load	D-2509	100	100
Shell 4-Ball EP Test, wel Kg		>400	>400
Ford Falex EP Test		>3000 lbs.	>3000 lbs.

Meets or exceeds the following tests and requirements:

- API Service Classification – GL-5, MT-1
- International Harvester – B-22
- Military Specification – MIL-PRF-2105E
- Mack – GO-J
- SAE J2360
- Limited Slip Performance

GO-1/06.14.17



Full Synthetic GL-5 Gear Oils

Medallion Plus® Full Synthetic GL-5 Gear Oils are formulated with synthetic base stocks for use in universal duty hypoid or spiral bevel gear differentials and manual transmissions in cars, light trucks and SUV's. It provides optimum axle and transmission protection and thermally stable extreme pressure agents protect against shock loading and wear.

Medallion Plus Full Synthetic GL-5 Gear Oils are fortified with anti-oxidants and corrosion inhibitors to resist damage from rust and oxidation.

PROPERTY	ASTM TEST METHOD	SAE 75W-90	SAE 75W-140
Viscosity @ 40°C, cSt	D-445	100.00	194.00
Viscosity @ 100°C, cSt	D-445	14.50	25.00
Viscosity Index	D-2270	160	160
Brookfield Viscosity @ 40°C, cP	D-2983	115,000	125,000
Flash Point, COC, °C (°F)	D-92	180 (356)	180
Pour Point, °C (°F)	D-97	-36 (-33)	-36
Color	D-1500	2.0	2.0
Gravity, °API	D-287	30.5	30.5
Copper Strip Corrosion (250°F)	D-130	1a	1a

Meets or exceeds the following tests and requirements:

- API Service Classification – GL-5
- Limited Slip Performance



Full Synthetic Global Multi-Vehicle ATF

Medallion Plus® Full Synthetic Global Multi-Vehicle Automatic Transmission Fluid (ATF) represents the latest technology in full synthetic automatic transmission fluids. It is specifically formulated for the newest generation of high efficiency transmissions and is also a fuel-efficient choice for older models as well.

This ATF allows for inventory optimization as it meets multiple applications and provides excellent service in a wide variety of automatic transmission applications. It provides improved oxidation and thermal stability in a fully synthetic formula. It possesses outstanding low temperature performance, superior anti-wear protection and improved torque transfer.

Medallion Plus® Full Synthetic Global Multi-Vehicle ATF may be used in a wide variety of applications including most General Motors, Ford, Chrysler, Toyota/Lexus, Nissan/Infiniti, and Honda/Acura transmissions, as well as transmissions installed in Hyundai, Isuzu, Jaguar, Kia, Land Rover, Mazda, Mercedes, Mitsubishi, Porsche, BMW, MINI, SAAB, Subaru, Volvo, and VW/Audi cars and light trucks. Check the owner's manual for specific recommendations.

PROPERTIES & SPECIFICATIONS:

PROPERTY	ASTM TEST METHOD	TEST SPECIFICATIONS
VISCOSITY @ 40°C, CST	D-445	31.00
VISCOSITY @ 100°C, CST	D-445	6.10
VISCOSITY INDEX	D-2270	150
FLASH POINT, COC, °C (°F)	D-92	208 (406)
POUR POINT, °C (°F)	D-97	-48 (-54)
COLOR	D-1500	Red
GRAVITY, °API	D-4052	32.9

Not for use in transmissions requiring Ford Type F, Continuously Variable Transmission (CVT) applications, or Double Clutch Transmissions (DCT).

Always consult your owner's manual for your specific recommended automatic transmission fluid.
ATF Viscosity may preclude Global ATF coverage.

If you have questions, please contact PetroChoice Technical Services, techservices@petrochoice.com, for assistance with determining the correct ATF coverage for your applications.

TO-14/08.16.2023



Full Synthetic Global Multi-Vehicle ATF

SPECIFICATIONS & APPROVALS

THIS PRODUCT MEETS OR EXCEEDS THE REQUIREMENTS OF:

ATF	TYPE A, SUFFIX A, 134, 3353, L12108, M115, M-1375.4, M-1375.6
AISIN WARNER	JWS 3324, AW-1, ATF-OWS
ALLISON	C3, C4
BMW	ATF 3+, ATF6, M-L12108, P/N 83 22 0 142 516, P/N 83 22 0 3997 114, P/N 83 22 2 152 426, P/N 83 22 2 163 514,
CATERPILLAR	POWER SHIFT TO-2
FORD	MERCON LV, MERCON SP
GM	AW-1, DEXRON II, DEXRON IIE, DEXRON III, DEXRON IIIG, DEXRON IIH, DEXRON VI, DEXRON T-IV, P/N 1940773, WS P/N 88863400 P/N 88863401
HONDA/ACURA	ATF 3.0, ATF 3.1, DW-1 (NOT CVTS)
HYUNDAI	SP-IV, SP-IVM, SPH-IV, SP-IV-RR, TIV, WS NWS 9638T-5, P/N 040000C90SG
INFINITI	MATIC-R, MATIC-S, MATIC-W
ISUZU	ATF II, ATF III, GENUINE ATF, ATF WSI, SCS
JAGUAR	02JDE 26444, FLUID 8432
JAMA	JASO M3154, CLASS 1-A-LV
LAND ROVER	AW-1 P/N LR0022460, P/N TYK500050, LR023288/023289
MASERATI	OIL NO. 231603
MAZDA	FZ, TYPE T-IV
MERCEDES BENZ	236.12, 236.14, 236.41
MITSUBISHI	DIAQUEEN ATF-MA1, DIAQUEEN ATF-PA, ATF-J3, SP-IV
NISSAN	MATIC-R, MATIC-S, MATIC-W
PORSCHE	P/N 000 043 304 00/01, P/N 000 043 305 43, P/N 000 043 305 54, P/N 000 043 306 24, P/N 958 300 901 00
SAAB	P/N 93 165 147
STELLANTIS	AS68RC, 8&9 SPEED, P/N 68218925AA/AB, AW-1, P/N 68092912AA, DEX-VI, P/N 68043742AA, FIAT 9.55550-AV2, FIAT 9.55550-AV5, FIAT 9.55550-AV6, P/N 05127382, P/N 68157995AA/AB, SP-IV, P/N 68171866AA, SP-IV, P/N 68171869AA
SUBARU	ATF WS
SUZUKI	MATIC-S
TOYOTA	ATF-FZ, JWS 3324, ATF WS, NWS9638
VOLVO	P/N 31 256 774, P/N 31 256 775
VW	G 052 533, G 055 005 A2, G 055 162 A2, G 055 162 A6, G 055 540 A2, G 060 162 A2
ZF	LIFEGUARDFLUID 6 (ZF S671 090 255), LIFEGUARDFLUID 8 (ZF S671 090 312), LIFEGUARDFLUID 9 (ZF AA01 500 001)

TO-14/08.16.2023

PRODUCT INFORMATION



LINE 25

Valvoline™ Syn Gard™ 668 ATF

Valvoline™ Syn Gard™ 668 ATF is an approved full synthetic heavy-duty automatic transmission fluid for use in Allison Transmissions. This fluid is formulated to meet and exceed the requirements of modern day transmissions where lubricants encounter very harsh conditions to provide extended drain capability. Syn Gard™ 668 ATF is approved for all TES 668 applications and is backwards compatible for TES 295 applications, including the Allison 1000 - 4000 series transmissions. It is also recommended for use in applications calling for TES-468 such as the H 40/50 EP Series transmissions.

Valvoline™ Syn Gard™ 668 ATF is recommended for Allison transmissions and similar applications calling for TES-668, TES-295, TES-468 and TES-389 approved fluids.

Specifications and Approvals

Syn Gard™ 668 ATF*	
Allison TES-668	Approved
App Num: 668-10112021	
Allison TES-295	
Allison TES-389	
Allison TES-468	

*Check owners' manual before use

Applications:

Valvoline™ Syn Gard™ 668 ATF ATF is approved for all TES 668 applications and is backwards compatible for TES 295 applications, including the Allison 1000 - 4000 series transmissions. It is formulated with premium base stocks, unique long-life friction modifiers, special anti-wear additives, and shear stable viscosity modifiers, among other performance packages, to fight the four major causes of transmission breakdown, including leaks, slippage, shudder and gear wear.

Suitable for use in a large range of heavy-duty automatic transmissions available in today's market.

Features and Benefits

Long Drain Intervals

Excellent friction durability and synthetic base stock makes it capable for extended oil drain intervals.

Corrosion protection

Enhanced with special anticorrosion additives for long drain application.

Advance additives

Modern additives protect against oxidation, foaming and deposits.

Superior Protection

Through use of synthetic base oil technology, SynGard™ 668 ATF fights the three major causes of transmission failure - heat, deposits and wear.

Smooth operation

Smooth power transfer performance and maintains smooth shifting longer than conventional automatic fluids.

PRODUCT INFORMATION



Keeping the world moving since 1866™

Serving more than 100 countries around the globe, Valvoline is a leading marketer, distributor and producer of quality branded automotive and industrial products and services. Products include automotive lubricants including MaxLife™, the first motor oil specifically formulated for higher-mileage vehicles; transmission fluids; gear oils; hydraulic lubricants; automotive chemicals; specialty products; greases, and cooling system products.

For more information on Valvoline products, programs and services please visit www.valvoline.com.au or contact the Technical Hotline on 1800 804 658 for product recommendations.

Typical Properties

Typical property characteristics are based on current production. Whilst future production will conform to Valvoline™ specifications, variations in these characteristics may occur.

Syn Gard™ 668 ATF	Typical
Viscosity @ 100 °C, mm ² /s, ASTM D445	6.8
Viscosity @ 40 °C, mm ² /s, ASTM D445	33.3
Viscosity Index, ASTM D2270	168
Density @ 15°C, kg/L, ASTM D4052	0.851
Gear Scuffing Wear Test (FLS)	>12
Flash Point, °C, ASTM D92	204
TBN, mg KOH/g, ASTM D2896	4.7
Colour, Visual	Red

Note: Valvoline™ Syn Gard™ 668 ATF may be unsuitable for use in some transmissions, always consult owners' manual if in doubt.

This information only applies to products manufactured in the following location(s): Australia

Part Number	Pack Size
1448.10	10L
1448.20	20L
1448.28	208L
1448IBC	1000L

Health and Safety

This product is not likely to present any significant health or safety hazards when used correctly in the right application. Safety Data Sheet (SDS) is available on request via your local sales office or 1800 804 658 or through our website www.valvoline.com.au

Protect the Environment

Take used oil to an authorized collection point. Do not discharge into drains, soil or water.

Storage

Storage We recommend to store all packages under cover. In case outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should never be stored above 60 °C, exposed to hot sun or freezing conditions.

Author:

VP - Effective 31-08-2023
Replaces - 1448/02

KOSTUSA DefendAL®

Global Automotive Extended Life Coolant/Antifreeze

Approved for use in all makes and all models of foreign and domestic passenger vehicles and light duty trucks

Compatible with any coolant/antifreeze, regardless of color
5 years | 150,000 miles protection

DefendAL® Global Automotive Extended Life Coolant/Antifreeze is a premium quality, ethylene glycol-based fluid specially formulated with industry-leading additives to provide optimum performance in all makes and all models of cars and light duty trucks. The product can also be used in heavy duty diesel applications.*

Available in:

Concentrate

Bulk #10189
Totes #10186
Drums #10190
Cases #10191

50/50 Premix

Bulk #10195
Totes #10193
Drums #10198
Cases #10200

DefendAL® Global Automotive Extended Life Coolant/Antifreeze is your cooling system's best defense.

- Premium quality, extended life coolant.
- Provides up to 5 years or 150,000 miles of protection.
- Ideal for top-off or replacement. User-friendly color does not change the color of the coolant already in the reservoir.
- Free of phosphates, borates, nitrites, silicates, and amines.
- Protects against corrosion of all cooling system metals, including aluminum.
- High-quality defoamer system, non-harmful to hoses, plastics or gaskets.
- Compatible with all major American brands of coolant technologies including conventional and Organic Acid Technology (OAT).
- Formulated for use in all vehicles requiring DEX-COOL*** coolant.

*Formulation can be used with the addition of SCA (Supplemental Coolant Additives) in heavy duty vehicles. Consult your vehicle's owner's manual for recommendations.

**DEX-COOL® is a registered trademark of the General Motors Corporation®.

KOST® USA, Inc. recommends to always properly dispose of spent coolant. Contact your state or local municipality for instructions on proper disposal to protect our environment. If a coolant spill occurs, call local authorities and ask for proper instruction on how to clean up the spill.



**GLOBAL AUTO EXTENDED LIFE
ANTIFREEZE/COOLANT**
Concentrate

For use in ALL MAKES & MODELS
Foreign and Domestic
passenger & light duty diesel models
5 years | 150,000 miles protection

DEFENDAL® is a registered trademark of KOST® USA, Inc.
KOST® USA, Inc. is a registered trademark of KOST® USA, Inc.

Think of our products as
Liquid Assets.



Global Automotive Extended Life Coolant/Antifreeze

ASTM D3306
 ASTM D4985
 Chrysler MS-7170
 Daimler DBL 7700:00
 Daimler DBL 7700:10
 Daimler DBL 7700:20
 Daimler DBL 7700:30
 EMD MI 1748F
 Ford ESE-M97B18-C
 Ford ESE-M97B44-A
 Ford WSS-M97B44-D
 Ford WSS-M97B51-A1
 Ford WSS-M97B55-A
 GM B 040 1065 - GM 6277M
 GM 6277M (DEX-COOL®)*
 GM 1825M
 GM 6038M
 GM 1899M
 John Deere JDM H24B, C
 John Deere JDS-6135
 Kia MS 591-08
 Komatsu KES 07 892
 Liebherr
 Mack GS17004
 MAN 324 Type N
 MAN 324 Type SNF
 MTU 5048
 MWM Deutz TR0199-99-1115
 Navistar CEMS B-1 Type I
 Navistar CEMS B-1 Type III
 Navistar CEMS B-1 Type IIIA
 Nissan
 SAE J1034
 SAE J1941
 TMC RP 302A
 TMC RP 302B
 TMC RP 303C
 TMC RP 329
 Toyota TSK 26016
 VW TL774-D/F
 Wisconsin Motors (Continental)

Always consult your vehicle's owner's manual for proper fluid removal and flushing procedures.

*Meets performance requirements but may or may not meet certain chemical requirements.

**DEX-COOL® is a registered trademark of the General Motors Corporation.

	ASTM Method	Concentrate	50/50
Glycols Content, mass %	GC	93.5	47
Bittering Agent (yes/no)		Yes	Yes
Water Content, mass %	D1123	2	50.8
Corrosion Inhibitor System, mass %		4.5	2.2
Specific Gravity @ 60°F	D1122	1.118	1.07
Flash Point	D97	240°F (116°C)	N/A
pH	D1287	8.8	8.5
RA	D92	5	2.5
Storage Stability		5 years	5 years
Effect on Non-Metals	D1882	No Effect	No Effect
Cavitation Erosion Rating	D2809	8 min	8 min
Foam Test, ml/sec	D1881	<50/3	<50/3
Fluid Color	Visual	Yellow	Yellow
Coolant/Antifreeze % 40/60 Freeze Point	D1177	-24°F (-12°C)	N/A
Coolant/Antifreeze % 50/50 Freeze Point	D1177	-34°F (-36°C)	-34°F (-36°C)
Coolant/Antifreeze % 60/40 Freeze Point	D1177	-62°F (-52°C)	N/A
Coolant/Antifreeze % 40/60 Boil Point	D1177	221°F (105°C)	N/A
Coolant/Antifreeze % 50/50 Boil Point	D1120	226°F (108°C)	226°F (108°C)
Coolant/Antifreeze % 60/40 Boil Point	D1120	234°F (112°C)	N/A
Ash Content	D1120	<5.0	<2.5
Chloride (mg/L)	D1119	<25	<25
Silicon Content (mg/L)	D3634	<10	<10

All reasonable care has been taken to ensure that the information herein is accurate as of the date of printing. Freedom to use any patent owned by KOST® USA, Inc. or others is not to be inferred from any statement contained herein. The test results listed are typical properties only. Formula and blending changes may result in slight color and appearance changes.

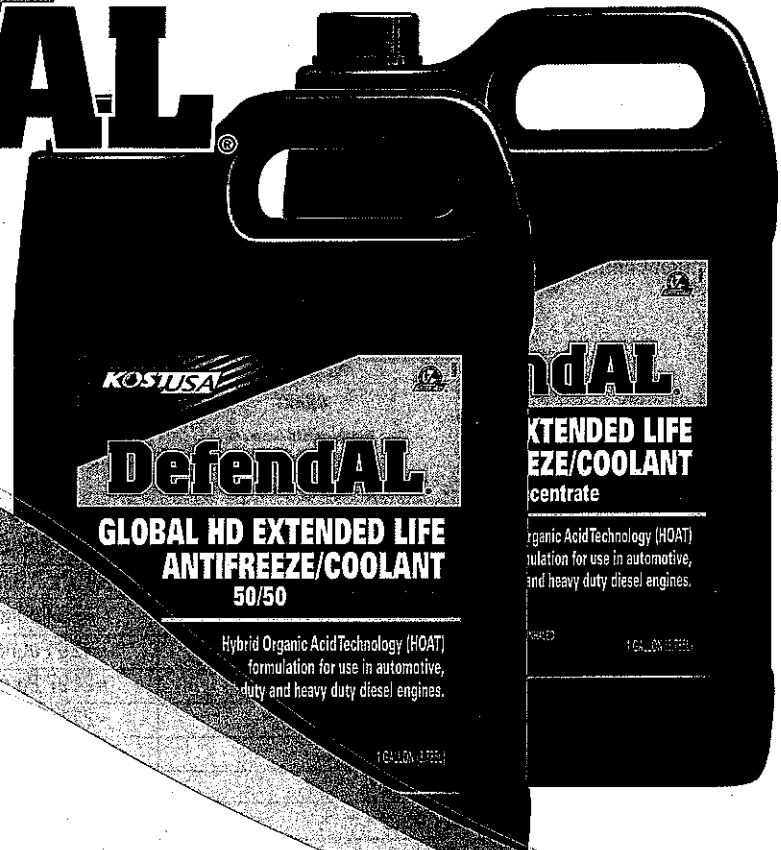


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Our products are cool.
Our people are warm. KOST® USA, Inc. is the largest family-owned manufacturer, supplier and marketer of antifreeze and functional fluids in the United States. Founded in 1985, our headquarters and manufacturing facility is strategically located in Cincinnati, Ohio. We build our customers' brands and our own brands through high performance products and superior service, focusing primarily in the Automotive & Heavy Duty retail aftermarket, as well as in the Oil & Gas sector.
It's more than business... it's personal.

DefendAL



Global Heavy Duty Extended Life Antifreeze/Coolant

DefendAL® Global Heavy Duty Extended Life Antifreeze/Coolant is a premium quality global Hybrid Organic Acid Technology (HOAT) virgin ethylene glycol-based fluid, specially formulated with industry-leading additives to provide optimum performance in gasoline engines, light duty diesel engines, and heavy duty applications.

- For use in all makes and all models of foreign and domestic passenger vehicles and light duty trucks
- Compatible with conventional and extended life Organic Acid Technology (OAT)-type Antifreeze/Coolant
- Up to 300,000 miles | 6,000 hours protection*
- Meets or exceeds: ASTM D3306, ASTM D6210, TMC RP329

*Maintain with DefendAL SCA every 50,000 miles. Consult your vehicle's owner's manual for recommendations.

Available in:

Concentrate

Bulk #10286
Totes #10285
Drums #10287
Cases #11155

50/50 Premix

Bulk #10290
Totes #10289
Drums #10291
Cases #11156

DefendAL® Global Heavy Duty Extended Life Antifreeze/Coolant is your cooling system's best defense.

- One Fleet-One Fluid. User-friendly fluid color and product formulation allows for top-off of any fluid color and fluid consolidation
- Contains a combination of nitrite and molybdate additives to provide superior wet sleeve liner cavitation protection
- No initial SCA precharge required
- Phosphate-free with low silicates
- Corrosion protection for steel, solder, copper, iron, brass and aluminum
- High-quality defoamer system, nonharmful to hoses, plastics or gaskets

DefendAL® Global Heavy Duty Extended Life Antifreeze/Coolant

Technical Information	Concentrate	50/50
Fluid Color	Yellow	Yellow
Density @ 68°F, lb/gal	9.3	8.9
pH (50v% solution)	10.5	10.5
Maintenance Interval, miles (hours)	50,000 (1,000)	50,000 (1,000)
Coolant Lifetime, miles (hours)	300,000 (6,000)	300,000 (6,000)

FREEZE/BOIL PROTECTION CHART <small>*Using a 15psi pressure cap</small>	% Cooling System Capacity	PROTECTION FROM	
		Freezing Down To	Boiling Up To*
	40	-13° F	+260° F
	50	-34° F	+265° F
	60	-62° F	+270° F

Shipping Information	Cases	Steel Drums	Totes
Package Quantity	3x1 Gallons	55 Gallons	275 Gallons
Package Dimensions	12.75"x 7.8"x 12"	23.5"D x 34.5"H	40"x 48"x 53"
Gross Container Weight - Concentrate	~30 Pounds	~550 Pounds	~2704 Pounds
Gross Container Weight - 50/50	~29 Pounds	~528 Pounds	~2594 Pounds
Gross Weight on Pallet - Concentrate	~2197 Pounds	~2262 Pounds	~2704 Pounds
Gross Weight on Pallet - 50/50	~2110 Pounds	~2174 Pounds	~2594 Pounds
Quantity Per Pallet	72	4	1
Pallet Dimensions	40"x 48"x 54.5"	48"x 48"x 39.4"	40"x 48"x 53"
Product Part Number - Concentrate	11157	10263	10260
Product Part Number - 50/50	11158	10280	10277
UPC Code - Concentrate	652138903892	652138100512	652138100529
UPC Code - 50/50	652138904295	652138100536	652138100543
UPC Case Code - Concentrate	652138101120	N/A	N/A
UPC Case Code - 50/50	652138101137	N/A	N/A
Weight Per Gallon - Concentrate	~9.3 Pounds	~9.3 Pounds	~9.3 Pounds
Weight Per Gallon - 50/50	~9 Pounds	~9 Pounds	~9 Pounds

WARNING: REPRODUCTIVE HARM - WWW.P65WARNINGS.CA.GOV.

DefendAL® Global Heavy Duty Extended Life Recommended for use in:

ASTM D3306
ASTM D6210
BS 6580:2010
CAT EC-1
CID-A-52624A
CNH MAT 3620 (87692740): Grade EG3/EG4
Cummins CES 14603

Daimler DBL 7700.00-7700.20
Deutz H 0685-6: Class DQC CA-14
Ford WSS-M97B51-A1
GM 1825M
JCB STD00088
John Deere JDM H24A
MAN 324 Type N

Navistar CEMS B-1 Type I, II, III
Perkins (CAT) SEBU7833-03
SAE J1034
SAE J1941
TMC RP 302A, B, C
TMC RP 329

TMC RP 338A
Toyota TSK 26016
Volvo Coolant VCS
VW TL774-C
Waukesha 4-2429H
Wisconsin Motors (Continental)

Always consult your vehicle's owner's manual for proper fluid removal and flushing procedures.



KOST USA, Inc. recommends to always properly dispose of spent coolant. Contact your state or local municipality for instructions on proper disposal to protect our environment. If a coolant spill occurs, call local authorities and ask for proper instruction on how to clean up the spill.

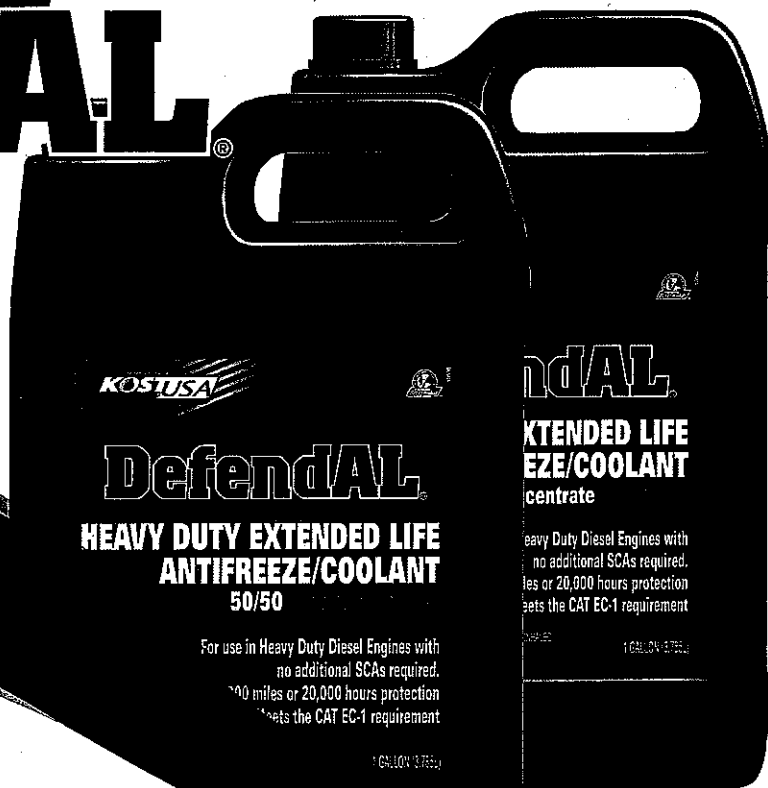


KOST® USA, Inc. is the Largest Family-Owned Manufacturer, Supplier and Marketer of Antifreeze, Glycols, and Functional Fluids in the United States. Founded in 1985, we are Headquartered in Cincinnati, OH. We Proudly Build our Customers Private Label Brands and our Oil & Gas brands through High-Performance Products and Superior Service, Primarily in the Automotive & Heavy Duty Aftermarket, as well as in the Oil & Gas Sector.

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DefendAL



Heavy Duty Extended Life Antifreeze/Coolant

DefendAL® Heavy Duty Extended Life Antifreeze/Coolant is a premium quality Nitrited Organic Acid Technology (NOAT) virgin ethylene glycol-based fluid. Specially formulated with industry-leading additives, this product provides extended service maintenance protection in engines requiring a heavy duty NOAT coolant.

- 2-EH free - safe for silicone seals
- Ideal for CAT or mixed fleets - see specifications for additional applications
- Cost of ownership 56% LESS than heavy duty conventional antifreeze*
- Meets ASTM D6210, ASTM D3306 and TMC RP329, additional specifications on the back

*Based on typical fluid prices, recommended maintenance practices, and average labor costs

Available in:

Concentrate

Bulk #10262
Totes #10260
Drums #10263
Cases #10264

50/50 Premix

Bulk #10279
Totes #10277
Drums #10280
Cases #10281

DefendAL® HD Extended Life Antifreeze/Coolant is your cooling system's best defense.

- Extended service life of 1,000,000 miles on-road / 8 years or 20,000 hours off-road use*
- Meets CAT EC-1 requirements
- Free of 2-ethylhexanoic acid (2-EH), phosphates, silicates and amines
- Provides freeze and boil-over protection
- No addition of SCAs required*
- Offers excellent wet sleeve liner cavitation protection, with a nitrite and molybdate additive combination
- Contains better heat transfer properties than conventional coolants requiring SCAs
- Extended life corrosion protection for aluminum and all other engine metals
- High-quality defoamer system, non-harmful to hoses, plastics or gaskets
- Compatible with most major American brands of extended life Organic Acid Technology type antifreeze/coolants

*DefendAL NOAT Extender may be needed based on test results. Consult your vehicle's owner's manual for recommendations.

KOSTUSA

a Recochem Company

DefendAL® Heavy Duty Antifreeze/Coolant

Technical Information	Concentrate	50/50
Fluid Color	Red	Red
Density @ 68°F, lb/gal	9.3	8.9
pH (50v% solution)	8.1	8.1
Maintenance Interval, miles (hours)	300,000 (6,000)	300,000 (6,000)
Coolant Lifetime, miles (hours)	1,000,000 (20,000)	1,000,000 (20,000)

FREEZE/BOIL PROTECTION CHART <small>*Using a 15psi pressure cap</small>	% Cooling System Capacity	PROTECTION FROM	
		Freezing Down To	Boiling Up To*
	40	-13° F	+260° F
	50	-34° F	+265° F
	60	-62° F	+270° F

Shipping Information	Cases	Steel Drums	Totes
Package Quantity	3x1 Gallons	55 Gallons	275 Gallons
Package Dimensions	12.75" x 7.8" x 12"	23.5" x 34.5"	40" x 48" x 46"
Gross Container Weight - Concentrate	~30 Pounds	~550 Pounds	~2703 Pounds
Gross Container Weight - 50/50	~29 Pounds	~528 Pounds	~2594 Pounds
Gross Weight on Pallet - Concentrate	~2209 Pounds	~2262 Pounds	N/A
Gross Weight on Pallet - 50/50	~2123 Pounds	~2174 Pounds	N/A
Quantity Per Pallet	72	4	1
Pallet Dimensions	40" x 48" x 54.5"	48" x 48" x 39.4"	40" x 48" x 46"
Product Part Number - Concentrate	11157	10263	10260
Product Part Number - 50/50	10158	10280	10277
UPC Code - Concentrate	652138903397	652138100550	652138100567
UPC Code - 50/50	652138903694	652138100574	652138100581
UPC Case Code - Concentrate	652138101144	N/A	N/A
UPC Case Code - 50/50	652138101151	N/A	N/A
Weight Per Gallon - Concentrate	~9.5 Pounds	~9.5 Pounds	~9.5 Pounds
Weight Per Gallon - 50/50	~9 Pounds	~9 Pounds	~9 Pounds

WARNING: REPRODUCTIVE HARM - WWW.P65WARNINGS.CA.GOV.

DefendAL® HD Extended Life

Recommended for use in:

ASTM D3306
ASTM D6210
BS 6580:2010
CAT EC-1
CID-A-52624A
CNH MAT 3620 EG3, EG4

Cummins CES 14439
Cummins CES 14603
Daimler DBL 7700
JCB STD00088
John Deere JDM H24A
MAN 324 Type N

MTU 5048
MWM Deutz TR0199-99-1115
MWM Deutz TR0199-99-2091
Navistar CEMS B-1 Type III
Perkins (CAT) SEBU7833-03

TMC RP 329
TMC RP 338A
Volvo Coolant VCS
Waukesha 4-2429H

Always consult your vehicle's owner's manual for proper fluid removal and flushing procedures.



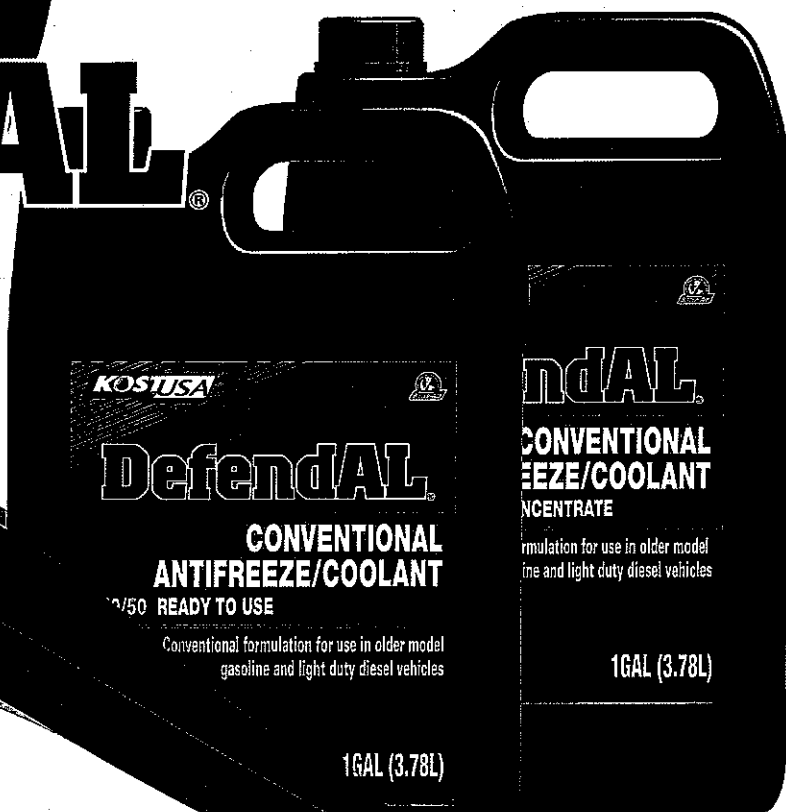
KOST USA, Inc. recommends to always properly dispose of spent coolant. Contact your state or local municipality for instructions on proper disposal to protect our environment. If a coolant spill occurs, call local authorities and ask for proper instruction on how to clean up the spill.



KOSTUSA



DefendAL[®]



Conventional Antifreeze/Coolant

DefendAL[®] Conventional Antifreeze/ Coolant is a virgin ethylene glycol-based fluid specially formulated to provide optimum performance in older cars and light duty trucks. Must add SCA for use in heavy duty applications.

- Low silicate conventional antifreeze/coolant
- Protection for 1 year/12,000 miles
- Meets or exceeds: ASTM D3306 and ASTM D4985 specifications, additional specifications on the back

Available in:

Concentrate

Bulk #10213
Totes #10212
Drums #10214
Cases #11163

50/50 Premix

Bulk #10218
Totes #10217
Drums #10220
Cases #11164

DefendAL[®] Conventional Antifreeze/Coolant is your cooling system's best defense.

- Protects against corrosion of all cooling system metals, including aluminum
- Provides freeze and boil-over protection
- High-quality defoamer system, non-harmful to hoses, plastics or gaskets
- Compatible with major American brands of conventional antifreeze/coolants
- Formulated for use in older passenger cars and light duty trucks (1986 and older); Chrysler[®] and Ford[®] (2000 and older), and GM[®] (1995 and older)
- Must add SCA for use in heavy duty applications*

*Conventional formulation can be used with the addition of SCA (Supplemental Coolant Additives) in heavy duty vehicles. Consult your vehicle's owner's manual for recommendations. Chrysler[®], Ford[®], and GM[®] are registered trademarks of their respective corporations.

KOSTUSA

a Recochem Company

DefendAL® Conventional Antifreeze/Coolant

Technical Information	Concentrate	50/50
Fluid Color	Green	Green
Density @ 68°F, lb/gal	9.31	8.95
pH (50v% solution)	10.4	10.4
Coolant Lifetime, miles (years)	12,000 (1)	12,000 (1)

FREEZE/BOIL PROTECTION CHART <small>*Using a 15 psi pressure cap</small>	% Cooling System Capacity	PROTECTION FROM	
		Freezing Down To	Boiling Up To*
	40	-13° F	+260° F
	50	-34° F	+265° F
	60	-62° F	+270° F

Shipping Information	Cases	Steel Drums	Totes
Package Quantity	3 x 1 Gallons	55 Gallons	275 Gallons
Package Dimensions	12.75" x 7.8" x 12"	23.5" x 34.5"	40" x 48" x 46"
Gross Container Weight - Concentrate	≈29.6 Pounds	≈548 Pounds	≈2695 Pounds
Gross Container Weight - 50/50	≈28.5 Pounds	≈527 Pounds	≈2591 Pounds
Gross Weight on Pallet - Concentrate	≈2191 Pounds	≈2255 Pounds	N/A
Gross Weight on Pallet - 50/50	≈2108 Pounds	≈2171 Pounds	N/A
Quantity Per Pallet	72	4	1
Pallet Dimensions	40" x 48" x 54.5"	48" x 48" x 39.4"	40" x 48" x 46"
Product Part Number - Concentrate	11163	10214	10212
Product Part Number - 50/50	11164	10220	10217
UPC Code - Concentrate	652138268441	652138100765	652138100772
UPC Code - 50/50	652138268465	652138100789	652138100796
UPC Case Code - Concentrate	652138101397	N/A	N/A
UPC Case Code - 50/50	652138101403	N/A	N/A
Weight Per Gallon - Concentrate	≈9.3 Pounds	≈9.3 Pounds	≈9.3 Pounds
Weight Per Gallon - 50/50	≈9 Pounds	≈9 Pounds	≈9 Pounds

WARNING: REPRODUCTIVE HARM - WWW.P65WARNINGS.CA.GOV.

DefendAL. Conventional

Recommended for use in:

ASTM D3306
ASTM D4985
Chrysler MS-7170
CNH MAT 3620 (87692740)
EMD MI 1748F

GM 1825M
GM 1899M
GM 6038M
GM B 040 1065

John Deere JDM H24B, C
Mack GS17004
Navistar CEMS B-1 Type I

SAE J1034
SAE J1941
TMC RP 302A
TMC RP 302B

Always consult your vehicle's owner's manual for proper fluid removal and flushing procedures.



KOST USA, Inc. recommends to always properly dispose of spent coolant. Contact your state or local municipality for instructions on proper disposal to protect our environment. If a coolant spill occurs, call local authorities and ask for proper instruction on how to clean up the spill.



KOSTUSA

A Harsco Corporation

KOST USA is the largest manufacturer, supplier, and marketer of antifreeze, glycols, and conventional fluids in the United States. Founded in 1985 and headquartered in Cincinnati, OH, we proudly build our customers' power (label brands) and our OVA sets (brand) through high-performance products and superior service. Our business is primarily in the automotive, heavy-duty, and industrial markets.

1-800-851-8201 | KOSTUSA.COM





The Penray Companies, Inc.

www.penray.com 440 Denniston Court, Wheeling, IL 60090-4731 Ph. 800.373.6729 Fx. 800.634.0276

Penray Product Bulletin

Part No. 4620,4605,4655 NON-CHLORINATED BRAKE CLEANER

General Description

Brake, C.V. joints & clutch parts cleaner.

Product Benefits

- Instantly dissolves and removes grease, oil, brake fluid and other contaminants from disc and drum brake components
- Superior cleaning power extends beyond brakes
- Cleans and degreases brake shoes, drums, cylinders, rotors, disc brakes and parts
- Cleans without disassembly
- Helps stop brake squeaking and can improve braking performance
- Leaves no residue
- Non-staining
- OTC compliant; Not for sale in CA or UT
- 45% VOC

Directions

Protect rubber brake parts from accidental over-spray before application. MAY BE HARMFUL TO SOME PLASTICS. Do not use on polycarbonate plastics such as Lexan®. If in doubt, call the manufacturer of the equipment. Liberally spray brake parts with contents and allow to run off. Permit product to air dry. DO NOT DRY WITH OPEN FLAME/TORCH. Contents will evaporate quickly to assist in cleaning. Repeat application if necessary. Use same process of cleaning clutches and C.V. joints.

Handling

Wash thoroughly after handling. Do not get into eyes, on skin or on clothing. Do not smoke while using this product. Do not use near excessive heat, sparks, or open flame.

Store in clean, dry locations away from excessive heat. Store in areas designated for the storage of Level III aerosols according to NFPA 30B (Manufacturing and Storage of Aerosol Products).

Physical Data

APPEARANCE/ODOR: Colorless, Petroleum Distillate odor

PHYSICAL STATE: Aerosol

BOILING POINT: 133 – 289°F

SPECIFIC GRAVITY/DENSITY: 0.7641

SOLUBILITY: Not soluble in water

VAPOR DENSITY: >1.0

FLASH POINT: 0 degrees F

VAPOR PRESSURE: 44.0 – 125.0 mmHG

PROPELLANT: Carbon Dioxide

EVAP. RATE: >1.0

AEROSOL FLAMMABILITY LEVEL: EXTREMELY FLAMMABLE

DOT PROPER SHIPPING NAME: Consumer Commodity
ORM-D

VOC: <45%, Compliant for CA & OTC



Distributed by:



The Penray Companies, Inc.

Part No. 4620,4605,4655 NON-CHLORINATED BRAKE CLEANER

www.penray.com 440 Denniston Court, Wheeling, IL 60090-4731 Ph. 800.373.6729 Fx. 800.634.0276

Penray Product Bulletin

SHIPPING INFORMATION							
Part #	Net Wt	Liquid or Aerosol	Qty/Cs	Lbs/Cs	Cs/Pal	Cs/ Layer	Layer/ Pal
4620	14 OZ.	AEROSOL	12	13.6	147	21	7
4605	5 GALLONS	LIQUID	1/Pail	34.42	24	12	2
4655	55 GALLONS	LIQUID	1/Drum	422	4	4	1

SHIPPING INFORMATION								
PART #	Case (Inches)			Unit (Inches)			UPC Codes	
	Length	Depth	Height	Length	Depth	Height	Individual	Case
4620	11	8.25	9.75	2.69	2.69	9.56	0-92443-46200-2	0-00-92443-46202-6
4605	11.5	11.5	13.63	11.5	11.5	13.63	0-92443-46051-0	N/A
4655	23	23	35.13	23	23	35.13	0-92443-46551-5	N/A