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SN-500

Recycled Base oil



AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

SN-500 (RECYCLED BASE OIL)

SN-500

Test Method

ASTM D-4052
ASTM D-445
ASTM D-445
ASTM D-2270
ASTM D-92
ASTM D-1500
ASTM D-97
ASTM D-974

Typical Values

Min .885
9.5-10.5
75-78
Min .95
210(min)
Max 2
Max 3
Max 0.03

Physical Characteristics

Density at 15.6 °C Kg/m³
Viscosity at 100°C CSt
Viscosity at 40°C CSt
Viscosity Index (VI)
Flash Point °C
Color
Pour Point °C
Acidity

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HYDROISOMERIZED BASE STOCKS
NEXBASE[®] 3020

- Description** NEXBASE 3020 is a colourless, catalytically hydroisomerized and dewaxed base stock comprising of hydrogenated, highly isoparaffinic hydrocarbons.
- Applications** NEXBASE 3020 is used in hydraulic and transmission oil formulations.

Technical Data

Property	Unit	Specification value	Typical value (2)	Test method
Appearance		Pass	(1)	ASTM D-4176-1
Viscosity at	mm ² /s			ASTM D-445
at 100°C		2.1 - 2.3	2.2	
40°C		≥ 7.1	7.5	
-20°C		≤ 135	125	
Pour Point	°C	≤ -42	-45	ASTM D-97
Flash Point	°C	≥ 155	165	ASTM D-93
Colour	()	≤ 0.5	< 0.5	ASTM D-1500
Density, at 15°C	kg/m ³	-	827	ASTM D-4052

1) Clear and bright liquid on visual observance, and no water or particulates observed at the bottom of the vortex.

2) Long-term average value

Typical Properties

Ultra-S Series

S-OIL's Ultra-S series consists of viscosity grades, Ultra-S 4,6 and 8, named according to their viscosities(cSt) at 100°C

Test Items	ASTM	Ultra-S 4	Ultra-S 6	Ultra-S 8
Appearance	Visual	B&C	B&C	B&C
Sp.Gravity,15/4	D 1298	0.834	0.840	0.847
Color, Saybolt	D 156	30	30	30
Kin.Vis@40, cSt	D 445	19.62	32.69	43.89
@100, cSt		4.247	6.017	7.234
Viscosity Index	D 2270	123	132	127
Flash Point, (COC)	D 92	228	234	256
Pour Point,	D 97	-20.0	-17.5	-15.0
Carbon Residue(CCR), wt%	D 189	<0.01	<0.01	<0.01
Copper Corrosion,100 /3hr	D 130	1a	1a	1a
Sulfur Content, wt ppm	D 5453	<1.0	<1.0	<1.0
TAN, mgKOH/g	D 974	<0.01	<0.01	<0.01
Ring Analysis, wt% CA	D 3238	0.2	0.2	0.2
wt% CN		17.7	17.3	20.9
wt% CP		82.1	82.5	78.9
Aniline Point	D 611	115.8	123.5	124.0
UV Absorbance, 260-350nm	D 2269	<0.1	<0.1	<0.1
Noack, wt%	D 5800	14.5	7.9	4.1
Saturates, wt%	D 2007	>99	>99	>99

Cosan Lubrificantes e Especialidades SA
Authorized Distributor of S-Oil Base Stocks

YU BASE CLASIFICATION

Item	Test Method	YU-L3	YU-3	YU-4	YU-6	YU-8
Appearance	Visual	B&				
Specific Gravity, @15/4°C	ASTM D 1298	0.8324	0.8299	0.8338	0.8423	0.8504
Kinematic Viscosity, @40°C	ASTM D 445	12.73	12.43	15.97	36.82	47.0
Kinematic Viscosity, @100°C	ASTM D 445	3.12	3.12	4.23	6.52	7.6
Viscosity Index	ASTM D 2270	105	112	122	131	128
Noack Volatility, wt%	DIN 51581	42	40	55	7	6.5
Flash Point, °C	ASTM D 92	190	204	230	240	260
Pour Point, °C	ASTM D 97	-45	-24	-15	-15	-12
Color	ASTM D 1500	L0.5				
Con. Carbon Residue, wt%	ASTM D 189	< 0.01				
Copper Corrosion	ASTM D 130	1-a				
Sulfur, ppm	ASTM D 2622	< 10				
Total Acid No., mgKOH/g	ASTM D 664	0.01				

Shell Risella X 415

GtL Technical White Oil

Shell Risella X 415 is a hydrocarbon fluid based on Shell Gas-to-Liquid Technology. It's highly saturated with a high degree of iso paraffinic structures and is odourless and very stable in colour

DESIGNED TO MEET CHALLENGES

Specifications, Approvals & Recommendations

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk, or the OEM Approvals website

Typical Physical Characteristics

Properties			Method	Shell Risella X 415
				Risella X 415
(Colour (Saybolt			ASTM D156	+30
Density	15°C @	kg/ m³	ISO 12185	806
Refractive Index	20°C @		ASTM D1218	1.450
Viscosity Index			ISO 2909	118
Flashpoint COC			ISO 2592	200
Pour Point			ISO 3016	-39
Kinematic Viscosity	20°C @	mm²/ s	ISO 3104	18.0
Kinematic Viscosity	40°C @	mm²/ s	ISO 3104	9.3
Kinematic Viscosity	100°C @	mm²/ s	ISO 3104	2.6
Aniline Point			ISO 2977	114
Sulphur			ISO 14596	5>
Evaporation Loss	22h/ 107°C	m%	ASTM D972	0.75
Noack Volatility	1h/ 250°C	m%	ASTM D5800	40
Purity Requirements for Technical White Oil			(FDA 178.3620 (b	Pass

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur

Health, Safety & Environment

Health and Safety

Shell Risella X 415 is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative

Protect the Environment

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



Shell Risella X 420

GtL Technical White Oil

Shell Risella X 420 is a hydrocarbon fluid based on Shell Gas-to-Liquid Technology. It's highly saturated with a high degree of iso paraffinic structures and is odourless and very stable in colour.

DESIGNED TO MEET CHALLENGES

Specifications, Approvals & Recommendations

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk, or the OEM Approvals website.

Typical Physical Characteristics

Properties	Method	Shell Risella X 420
		Risella X 420
Colour (Saybolt)	ASTM D156	+30
Density @ 15°C kg/m ³	ISO 12185	816
Refractive Index @ 20°C	ASTM D1218	1.454
Viscosity Index	ISO 2909	130
Flashpoint COC °C	ISO 2592	230
Pour Point °C	ISO 3016	-36
Kinematic Viscosity @ 20°C mm ² /s	ISO 3104	40
Kinematic Viscosity @ 40°C mm ² /s	ISO 3104	18.0
Kinematic Viscosity @ 100°C mm ² /s	ISO 3104	4.1
Aniline Point °C	ISO 2977	120
Sulphur mg/kg	ISO 14596	<5
Evaporation Loss 22h/107°C %m	ASTM D972	0.12
Noack Volatility 1h/250°C %m	ASTM D5800	12
Purity Requirements for Technical White Oil	FDA 178.3620 (b)	Pass

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

Health, Safety & Environment

• Health and Safety

Shell Risella X 420 is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

• Protect the Environment

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



Shell Risella X 430

GtL Technical White Oil

Shell Risella X 430 is a hydrocarbon fluid based on Shell Gas-to-Liquid Technology.

It's highly saturated with a high degree of iso paraffinic structures and is odourless and very stable in colour.

DESIGNED TO MEET CHALLENGES

Specifications, Approvals & Recommendations

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk, or the OEM Approvals website.

Typical Physical Characteristics

Properties	Method	Shell Risella X 430
		Risella X 430
Colour (Saybolt)	ASTM D156	+30
Density @ 15°C kg/m ³	ISO 12185	828
Refractive Index @ 20°C	ASTM D1218	1.460
Viscosity Index	ISO 2909	140
Flashpoint COC °C	ISO 2592	265
Pour Point °C	ISO 3016	-24
Kinematic Viscosity @ 20°C mm ² /s	ISO 3104	111
Kinematic Viscosity @ 40°C mm ² /s	ISO 3104	43.0
Kinematic Viscosity @ 100°C mm ² /s	ISO 3104	7.6
Aniline Point °C	ISO 2977	>130
Sulphur mg/kg	ISO 14596	<5
Evaporation Loss 22h/107°C %m	ASTM D972	0.1
Noack Volatility 1h/250°C %m	ASTM D5800	2.0
Purity Requirements for Technical White Oil	FDA 178.3620 (b)	Pass

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

Health, Safety & Environment

• Health and Safety

Shell Risella X 430 is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

• Protect the Environment

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

AB-L40 HL

NAPHTHENIC BASE OIL



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB-L40 HL (NAPHTHENIC BASE OIL)

Product Specification

NAPHTHENIC BASE OIL

AB L40 HL meets all qualifications of the EPA final rule.

L40 HL was also tested according to ASTM D 2622 and found to have a sulfur level of 0.436 ppm.

PROPERTIES	TEST METHOD	SPECIFICATIONS		
		Minimum	Maximum	Typical
Viscosity, cSt @ 40° C	D-445		5.25	4.20
Viscosity, cSt @ 100° C	D-445			1.53
Viscosity, SUS @ 100° F	D-2161	37.0	44.0	40.8
Viscosity, SUS @ 210° F	D-2161			31.2
Visual	ETRM-2			Pass
Specific Gravity, 60/60° F	D-1250	0.8735	0.8844	0.8778
Pounds per Gallon @ 60° F	D-1250			7.309
Flash, COC, C (F)	D-92	115 (240)		127 (260)
Pour Point, C (°F)	D-97		<-60 (<-51)	<-60 (<-51)
Color	D-1500		0.5	L0.5
Kauri Butanol Value, Kb	D1133			35.2
Refractive Index @20°C	D-1218		1.4900	1.4821
Sulfur, ppm	D-5453		10	< 3 ppm
Aromatic Content, %	D-5186			9.5
Carbon-Type Analysis, %	D-1240			
Ca				12
Cn				44
Cp				44
Distillation, °F	D-86			
IBP				504
5v%				513
10v%				515
50v%				530
90v%				561
EP				574

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AB-L40T

NAPHTHENIC PROCESS OIL



AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-L40T (NAPHTHENIC PROCESS OIL)

Product Specification

NAPHTHENIC PROCESS OIL

AB-L40T Naphthenic Oil is a low aniline point naphthenic oil, very light in color, and suitable for process oil applications, lubricant blending, and drilling fluid components.

PROPERTIES	TEST METHOD	SPECIFICATIONS		
		Minimum	Maximum	Typical
Viscosity, cSt @ 40° C	D-445	4.00	5.00	4.60
Viscosity, cSt @ 100° C	D-445			1.55
Viscosity, SUS @ 100°F	D-2161			42
Viscosity, SUS @ 212°F	D-2161			31.2
Appearance at 70°F	E-2680			C&B
Specific Gravity, 60/60° F	D-4052	0.882	0.899	0.895
Pounds per Gallon @ 60° F	D-1250			7.47
Flash, COC, F	D-93	240		244
Aniline Point, °F	D-611	135	145	139
Pour Point, °F	D-7346		-75	
Color	D-6045		0.5	L0.5
Color Saybolt	D-6045	16		24
Refractive Index at 20°C	D-1747			1.485
Neutralization Value, mgKOH/g	D-974			<0.01
Sulfur	D-2622		10	2

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AB-983

GEAR OIL ADDITIVE



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB-983 **(GEAR OIL ADDITIVE)**

Item	INDICE	Test method
Appearance	Light brown transparent liquid	Visual test
Flash point (open cup), °C	> 100	GB/T3536
Kinematic Viscosity (100°C), mm ² /s	report	GB/T265
Density 20°C g/cm ³	0.9-1.2	GB/T2540
Sulfur content %	≥35	SH/T388
Phosphorus content %≥	≥1.25	SH/T0296

This Oil additive package is prepared by referring to the elemental compositions and performances of the petrochemical industry scientific research institution's Gear Oil additive package, using phosphoric extreme pressure antiwear additive and organic sulfur compounds as additives and mixing with benzotriazole derivatives, thiadiazole derivatives, multifunctional additives, and the like. Its major performances meet foreign EXXON'S Parapoid 11483B, Parapoid 2705, Mobil's Mobilad G251 universal gear oil additive performance level. It is used to formulate vehicle gear oils and industrial gear oils.

Quality index

III . Recommended dosage

1. GL-5 vehicle gear oil: 4.4%
2. GL-4 vehicle gear oil: 2.2%
3. Heavy load industrial gear oil: 2.0%

PACKING AND STORAGE

Packing: The product is packed in 200 liter metal drum (net weight: 200 kg/drum). Storage: Please refer to SH/T0164, for transportation, storage and oil blending. Keep the temperature not higher than 60°C. For long-term storage the suggested temperature is lower than 50°C. The dry, clean and ventilating warehouse is recommended.

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AB-6124

GEAR OIL ADDITIVE



AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-6124

(GEAR OIL ADDITIVE PACKAGE)

AB 6124 is one high grade gear oil additive package. This grade package reaches the requirement of API GL-5/GL-4/GL-3 grade gear oil and heavy duty industry gear oil as well. With 4.2% dosage GL -5 gear oil have past CRCL-42 ,CRCL-37, CRCL-33, CRCL-60 bench test ,match USS-224,AMGA250.04 requirement.

PROPERTIES	Limits	TEST METHOD
KV@100°C,mm ² /s	45-65	ASTM D445
Desnsity,15°C,kg/m ³	Report	ASTM D1298
Flash Point(Open cup)°C	80min	ASTM D92
Chlorine,%(m/m)	non	ASTM D5185
Nitrogen,%(m/m)	0.5-1.0	ASTM D4629
Sulfur,%(m/m)	25-35	ASTM D5185
Phosphor ,%(m/m)	1.2-2.8	ASTM D5185

Grade	Viscosity Grade	Dosage(%)
GL-5	75W90, 80W90, 85W90, 85W140	4.2
GL-4	75W90, 80W90, 85W90	2.1
GL-3	Mono/multi grade	1.05
Heavy duty industry gear oil		1.5
Mid duty industry gear oil		1.0

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AB-5413



Universal Engine Oil Additive Package

AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB-5413 (UNIVERSAL ENGINE OIL ADDITIVE PACKAGE)

DESCRIPTION

This is a high quality economical add pack solution that brings advantageous detergency, dispersancy and good anti-oxidation ability at a moderate dosage. It's composed of synthetic sulfonate, ashless dispersant, detergent, corrosion inhibitor, and high temperature antioxidant.

REFERENCE DOSAGE

QUALITY LEVEL	DOSAGE
CD/SF	5.0
CD	4.0

SPECIFICATION

ITEM	TYPICAL DATA	TEST METHOD
TBN	100 min	SH/T0251
Kinematic viscosity @ 100 °C mm ² /s	Report	GB/T265
Flash point (open) °C	100 min	GB/T3536
Ca Wt%	3.8 min	SH/T0270
Zn Wt%	2.0 min	SH/T0226
N Wt%	0.4 min	SH/T0224

PACKAGE

180KG per 200L steel drum; 14.4MT per 20ft container

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AB-8123



SF/CD universal engine oil additive package

AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB-8123

(SF/CD UNIVERSAL ENGINE OIL ADDITIVE PACKAGE)

Product Description

Properties:

AB 8123 universal engine oil additive package has good dispersancy and anti-oxidation property which is composed of synthetic sulphonate, ashless dispersant, anti-oxidant and corrosion inhibitor. AB 8123 meets API performance categories SB/CB through SF/CD.

Specification

Items	Limits	Test Methods
Kinetic viscosity, 100°C, mm ² /s	report	ASTM D445
Density, 15°C, kg/m ³	1015-1035	ASTM D1298
Flash point(open cup)°C	180min	ASTM D92
Zn, %(m/m)	1.7min	ASTM D5185
Calcium, %(m/m)	4.2min	ASTM D5185
TBN, mgKOH/g	125min	ASTM D2896

Dosing

Grade	Viscosity grade	Dosage(%)
SF/CD	Mono/multi	4.5/5
SD/CC	Mono/multi	3.3/4
SC/CC	Mono/multi	2.5/3
SB/CB	Mono/multi	1.25/1.5

Package, Storage ,Transportation and Usage:

The product should be packed, marked, stored, transported and accepted on delivery according to SH0164. It is nonflammable, inexplosive and incorrosive. When storage, transportation and blending, the highest temperature should not exceed 60°C. The ambient temperature should not exceed 50°C for

long-term storage. Protective articles should be used. Do not contact skin.

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AB-9623



SL/CI-4 ENGINE OIL PACKAGE ADDITIVE

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-9623

(SL/CI-4 ENGINE OIL PACKAGE ADDITIVE)

AB 9623 universal engine oil additive package has good dispersancy and anti-oxidation property which is composed of synthetic sulphonate, ashless dispersant, anti-oxidant and corrosion inhibitor. AB 9623 meets API performance categories through SL/CL-4 to CF-4. The reference dosage is 11.0%-7.0%.

PROPERTIES	LIMITS	TEST RESULT	TEST METHOD
KV@100°C,mm ² /s	90-100	95.56	ASTM D445
Density,20°C,kg/m ³	990-1010	1002.1	ASTM D1298
Flash Point(Open cup)°C	170min	190	ASTM D92
Zinc,%(m/m)	1.2-1.35	1.24	ASTM D5185
Nitrogen,% (m/m)	0.65-0.75	0.70	ASTM D4951
Boron,%(m/m)	0.12-0.16	0.14	ASTM D4951
Phosphor,%(m/m)	1.0-1.2	1.00	ASTM D4951
Calcium,%(m/m)	3.0-3.5	3.38	ASTM D5185
TBN,mgKOH/g	100-120	108	ASTM D2896

Grade	Viscosity Grade	Dosage(%)
SL/CI-4	5W30, 10W30, 5W40, 10W30, 15W40	11.0
SI/CH-4	5W30,10W30,5W40,10W30,15W40	9.5
SI/CG-4	5W30,10W30,5W40,10W30,15W40	9.0
SI/CF-4	5W30,10W30,5W40,10W30,15W40	8.0
CF-4	10W40,15W40	7.7
CF	10W40,15W40	7.0

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AB-1623



Universal Engine Oil Additive Package

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-1623

(UNIVERSAL ENGINE OIL ADDITIVE PACKAGE)

DESCRIPTION

This is a high quality economical add pack solution that brings advantageous detergency, dispersancy and good anti-oxidation ability at a moderate dosage. It's composed of metal detergent, dispersant, antioxidant, Mg and Mo. The color of the product is light, and it can be used in Group II/III.

REFERENCE DOSAGE

QUALITY LEVEL	DOSAGE
CF-4/SL	7.0
CF/SL	6.5
CF/SJ	5.8
SG/CF	5.2

SPECIFICATION

ITEM	TYPICAL DATA	TEST METHOD
TBN	115	SH/T0251
Kinematic viscosity @ 100 °C mm ² /s	Report	GB/T265
Flash point (open) °C	165	GB/T3536
Ca Wt%	4.2	SH/T0270
Zn Wt%	1.27	SH/T0226
P Wt%	1.02	SH/T0296
Mo Wt%	0.144	Spectrophotometry
N Wt%	0.45	SH/T0224
Mg Wt%	0.082	LZA-Ca-10

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AB-3313



Low-end Universal Diesel / Gasoline

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-3313

(LOW-END UNIVERSAL DIESEL / GASOLINE)

ENGINE OIL ADDITIVE PACKAGE

DESCRIPTION

T3133 is dark brown viscous liquid prepared from varieties of additives, such as excellent detergent, dispersant, antioxidant and corrosion inhibitor and anti wear agent. It can satisfy the requirement of four-stroke engine oil. The recommended treat meets the following classification and specification requirements.

REFERENCE DOSAGE

QUALITY GRADE	MULTI/MONO	TREATING RATE (WT %)
CD/CF	Multi	6.0
CD/CF	Mono	5.5
CC/SC	Multi	3.0
CC/SC	Mono	2.8
CB/SB	Mono	1.5+0.2% ZDDP
CD/SF	Multi	4.5
CC/SD	Multi	3.8
CC/SE	Multi	4.0

SPECIFICATION

ITEM	LIMITS	TEST METHOD
Density @ 20°C g/cm ³	Report	GB/T1884
Total Base Number mgKOH/g	180	SH/T0251
Flash point(open cup) °C	170 min	GB/T3536
Ca Wt%	6.0	SH/T0270
Zn Wt%	1.6	SH/T0226
P Wt%	1.5	SH/T0296
K. Viscosity @100°C mm ² /s	Report	GB/T265

PACKAGE

180KG per 200L steel drum; 14.4MT per 20ft container

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AB-4323



PASSENGER CAR ENGINE OIL ADDITIVE

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-4323

(PASSENGER CAR ENGINE OIL ADDITIVE PACKAGE)

AB 4323 Passenger car engine oil additive package has good dispersancy and anti-oxidation property which is composed of synthetic sulphunate, ashless dispersant, anti-oxidant and corrosion inhibitor. AB 4323 meets API performance categories SM to SN with dosage 8.0% and 8.5%.

Specification

PROPERTIES	LIMITS	TEST METHOD
KV@100°C,mm ² /s	Report	ASTM D445
Desnsity,15°C,kg/cm ³	Report	ASTM D4052
Flash Point(Open cup)°C	180min	ASTM D92
ZN,%(m/m)	1.0min	ASTM D5185
Ca,%(m/m)	2.5min	ASTM D5185
P, %(m/m)	0.75min	ASTM D5185
N,%(m/m)	1.1min	ASTM D5291
TBN,mgKOH/g	80 min	ASTM D2896

Dosing

Grade	VISCOSITY GRADE	DOSAGE(%)
SM	Multi	8.0
SN	Multi	8.5

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AB-200

VISCOSITY INDEX IMPROVER



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB-200

(VISCOSITY INDEX IMPROVER)

AB 200 is the hydrogenated **styrene – isoprene** premium viscosity modifier.

- AB 200 is the solid star polymer and dissolved to form concentrates in conventional refined mineral oils & in certain synthetic fluids.
- Perfectly applied for PAOs.
- AB 200 is used with lower dosage than OCP.
- Excellent applicable in the formulation of multi grade oils approaching the stringent performance requirements demanded of modern diesel and gasoline engine oil specifications.
- AB 200 has excellent permanent SSI 05, low temperature performance, optimal contribution to high temperature viscosity.

PROPERTIES

TEST METHOD

APPEARANCE

Solid Bale

Density At 15°C (kg/m³)

865

Colour

White

Solution 10% in SN 150 GII

300

Shear Stability Index (SSI)

5

Dissolving Method

AB 200 form should be dissolved under high agitation in oil at 80-110°C with 6-12 hours until all solids have been dissolved.

AB 200 solid form: 36 months from date of production at temperature not exceeding 60°C in dry condition, exposure to light to be avoided.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

AB-675



VISCOSITY INDEX IMPROVER (OCP)

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-675

(OLEFIN COPOLYMER (OCP SOLID FORM))

Product Description:

AB 675 (Viscosity Index Improver) is a solid highly stable olefin copolymers (OCP) with narrow molecular weight distribution intended for use as viscosity index improver and viscosity modifier thickeners in mineral oil based automotive crank case lubricants and industrial lubricants.

Dissolving Method:

-EPM Solid form should be dissolve under high agitation in oil at 80-110 °C with 6-12 hours until all solids have been dissolved.

-EPM Solid Form: 36 month from date of production at temperature not exceeding 30°C in dry condition, exposure to light to be avoided.

Safety, Handling and Storage:

-Wear Suitable dust mask and gloves when handling polymer.

-Avoid storing polymer more than 50°C prolonged periods.

-And avoid direct sunlight. nm date of production at temperature not exceeding

PRODUCT TYPE

SPECIFICATIONS

Mooney Viscosity (ML 1+4 at 100C)	50-60
Molecular Weight Distribution	Medium
Density, g/cc	0.86
Composition	
Ethylene, Min %	73
Propylene, Max %	27
SSI	45
K. Viscosity at 100C (10% polymer in SN 150)	2800-3500
Ash Content, mass%	0.1 max
Net weight	25kgs/bag

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AB 676



Viscosity Index Improver (OCP)

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 676 (Viscosity Index Improver)

Application

OCP (Olefin Co-Polymer) type viscosity index improver (VII) for use in motor oils, greases and industrial lubricants.

Typical physical

PROPERTY	VALUE	METHOD
APPEARANCE	Clear Solid	
DENSITY	0.860-0.865	ASTM D1505
K. VISCOSITY, 10% SN150/100(cst)	1150-1250	ASTM D445
SHEAR STABILITY INDEX (SSI)	25	ASTM D6022
Mooney Viscosity (ML 1+4 @100C)	7-15	ASTM D1646
% Polymer blended in SN200	13-14%	
Molecular weight Distribution	24.000-28.000	
Composition		
Ethylene, Min%	48	
Propylene, Max%	52	
Ash Contents mass %	Max 0.1	
Water Content KF, PPM	Max 250	

AB-677

VISCOSITY INDEX IMPROVER FOR HYDRAULIC FLUIDS



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB-677 **(VI IMPROVER FOR HYDRAULIC FLUIDS)**

AB 677 – is an alkyl methacrylate type polymer, specially designed for uses as Viscosity Index Improver, in formulation of High Viscosity Index Hydraulic Fluids & Gear Oils. Due to the very good shear stable Index in Bosch injector pump and good Pour Point properties it is specially recommended for shear stable hydraulic oils which are used in the wide range of temperatures.

AB 677 – has been optimized to impart properties like pour point, demulsibility and hydraulic stability.

PRODUCT: AB 677

No.	PARAMETERS	SPECIFICATIONS
1.	APPEARANCE	Clear Viscous Liquid
2.	COLOUR	Pale Yellow to Amber
3.	VISCOSITY@100 C (ASTM D445)	1100 Typical (700-1400 CST)
4.	DENSITY@25C (ASTM D4052)	0.92 Typical (0.86-0.94 range)
5.	FLASH POINT (COC) C (ASTM D3278)	150 min
6.	SSI 30/250 cycles (DIN 51382)(ASTM 6278)	12/25

Recommended dosage is about 1-10 wt% in formulation depending on base oil, other additives and properties desired.

Maximum Blending temp is about 90 C.

The product should be stored under the shade. Max outside temp about 40 C.
Product will be stable for atleast 1 yrs if stored and handled properly.

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SPO V 0141

fine quality Esprene SPO



AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

SPO V 0141

FINE QUALITY ESPRENE SPO

We offer high and fine quality Esprene SPO V0 141 to our most reliable customers which are situated all-round the nation.

These Esprene SPO V 0141 are available at industrial leading prices.

Available In origin Packing Bags Of 25 Kgs Manufactured By Sumitomo Chemical, Japan.

Sample	SPO V 0141
Manufacturer	Sumitomo Chemical
Sort Of Polymer	EPM
Form	Pellet
IR Method Propylene Cont' (wt%)	27.8
Density (kg/cm ³)	860
MFR 190°C, 21.2N	0.53
121°C	33
100°C	52

AB 123

viscous Solution



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB 123

Viscous Solution Of Alkyl Methacrylate Polymer In Neutral Oils

DESCRIPTION:

AB 123 is a viscous Solution of Alkyl Methacrylate Polymer in Neutral Oils recommended for use as a Pour Point Depressant for Lubricating Base Oils. In finished Lubricants they are compatible with other commonly used additive.

AB 123 is used for Pour depressing Industrial and gear lubricants, Mono grade and Multi-grade crankcase oils. In addition to reducing the Pour Point, AB 123 is particularly effective in controlling low temperature viscosity under shear conditions.

SPECIFICATIONS:

1. APPEARANCE	Clear Viscous Liquid
2. COLOUR	Pale Yellow to Amber
3. VISCOSITY@100 C(ASTM D445)	300-900 CST
4. DENSITY@25 C (ASTM D4052)	0.90 Typ. (0.88-0.94 range)
5. FLASH POINT (COC) C (ASTM D3278)	150 min

Recommended Dosage 0.1-0.5% for Group II and Group III oils.

Maximum Blending temp is about 90 C.

The product should be stored under the shade. Max outside temp about 40 C.

Product will be stable for at least 1 year if stored and handled properly.

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HCO

HYDROGENATED CASTOR OIL



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

HCO (HYDROGENATED CASTOR OIL)

HYDROGENATED CASTOR OIL

Hydrogenated Castor oil also called as Castor wax, is a hard, brittle, high melting solid, which is Tasteless and odor less. Chemically it is a triglyceride mainly of 12-Hydroxy Stearic acid. It is insoluble in water and solubility in many organic solvents is also very limited. HCO is available as flakes or powder, which melts clear transparent liquid. It is non- toxic, Non-hazardous material.

Specifications

Characteristics	Range	Test method
Appearance	White flakes	Visual
Gardner color	1+G Max	AOCS td1a-64 (97)
Acid value	2.0 max.	AOCS ca 5a-40(97)
Melting point	82 – 86 Deg C	AOCS cc 3b-92(93)
Iodine value	3 Max	AOCS cd 1-25(97)
Hydroxyl value	155min	AOCS cd 13-60(97)
Saponification value	175-185	AOCS cd 3-25(97)
Moisture volatiles	0.02% max	AOCSca 2c-25(97)

Key Applications: Rubber, Plastic, Polishes, Lubricants, Sealants, Coatings, Cosmetics, Toiletry and Adhesives

12-HSA

12-HYDROXY STEARIC ACID



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

12-HSA

(12-HYDROXY STEARIC ACID)

12-HYDROXY STEARIC ACID

12-Hydroxy Stearic acid is mixed fatty acid obtained by hydrolysis of hydrogenated castor oil. It is high melting, brittle, waxy solid at ambient temp. It should be stored away from heat to avoid deterioration. It is insoluble in water and its solubility in many organic solvents is also limited. It is non-toxic, non-Hazardous material.

Specification

Characteristics	Range	Test method
Appearance	Creamish Flakes	Visual
Gardner color	4max	AOCS td1a-64 (97)
Acid value	175Min	AOCS ca 5a-40(97)
Melting point	72- 76 C	AOCS cc 3b-92(93)
Iodine value	3 - max	AOCS cd 1-25(97)
Hydroxyl value	155min	AOCS cd 13-60(97)
Saponification value	180-190	AOCS cd 3-25(97)
Moisture volatiles	0.10% max	AOCSca 2c-25(97)

Key Applications:

To manufacture Lithium and Calcium based Greases, Cosmetics, Toilet Goods, Polishes, Inks, Adhesives, Plasticizer, Activator and Internal Lubricant for natural and synthetic rubbers.

LIOH

Lithium Hydroxide Monohydrate



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

LIOH

(LITHIUM HYDROXIDE MONOHYDRATE)

Appearance: white crystal/granular/powder

Chemical formula :LiOH.H₂O

Molecular weight: 41.96

Density:1.51g/cm³(20°C)

Standard heat of formation:-188.9Kcal/mole

Standard heat omelting:0.687Kcal/mole

Standard: GB8766-2002

Specification	Unit	Industrial grade	Battery grade	Non dust	High purity
LiOH	%min	56.5	56.5	56.5	56.5
Na	%max	0.1	0.005	0.1	0.0005
K	%max	0.1	0.005	0.1	0.0005
Fe	%max	0.002	0.0008	0.002	0.0008
Ca	%max	0.035	0.005	0.035	0.002
Mg	%max	---	0.001	---	0.0005
SO ₄ ²⁻	%max	0.03	0.01	0.03	0.01
Cl ⁻	%max	0.005	0.003	0.005	0.003
CO ₂	%max	0.5	0.035	0.5	0.35
SiO ₂	%max	---	0.005	---	0.005
Ni	%max	---	0.0001	---	0.0001
Mn	%max	---	0.0001	---	0.0001
Cu	%max	---	0.0001	---	0.0001
Pb+Zn+Al	%max	---	0.0001	---	0.0001
Oil	%max	---	---	1	---

AB-57



BUTYLATED OCTYLATED DIPHENYLAMINE

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-57 (BUTYLATED OCTYLATED DIPHENYLAMINE)

Product Description

Properties:

It imparts excellent oxidation resistance.

High nitrogen content & liquid form allow to be easily blend.

High temperature oxidation stability & gives good stabilizing properties.

Application:

Lubricants: It imparts good protection against degradation due to heat and oxygen. its high nitrogen content and liquid form allow AB57 to be easily blended into all types of high performance lubricants. AB57 is especially suitable for use in synthetic and mineral oil based lubricant used in high temperature applications.

AB57 can also be used in synthetic base fluids such as silicone oils & diesters.

PARAMETER	UNIT	SPECIFICATION	RESULT
Appearance	NA	Clear Viscous Yellowish to Reddish Brown Liquid	Dark Brown Viscous Liquid
KV@40°C	mm ² /s	280-400	392.0
Density@25°C	gm/Cm ³	0.9700-0.9800	0.9714
Flash Point	°C	>185	Passes
Nitrogen Content	%	4.0-5.0	4.42
Solubility	%	Mineral Oil>5 Ester>5 Water<0.01	Passes

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Phone : +91 20 65600346/347 Email : info@abpetrochem.com Web : www.abpetrochem.com

AB-67



DINONYLATED DIPHENYLAMINE

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-67

(DINONYLATED DIPHENYLAMINE)

Product Description

Application and Uses:

AB67 is a liquid general purpose, ashless anti-oxidant for industrial oils like hydraulic fluids , turbine oils which are blended with mineral and synthetic base stocks.

It also finds application in engine oils, gear oils and greases for automotive, aviation diesel and gas-engine service.

PARAMETER	UNIT	SPECIFICATION	RESULT
Appearance	NA	Dark Brown viscous Liquid	Dark Brown Viscous Liquid
Specific Gravity	g/cm ³	0.9300-0.9700	0.9475
Visosity@40°C	CST	500-900	659
Flash Point	°C	>100	Passes
Nitrogen Content	%	3.2-3.8	3.42
Chlorine,	PPM	200 Max	<50
Moisture Content	%	0.5 Max	0.044
Solubility	NA	Solubility in petroleum & Synthetic Lubricant Bases Insoluble in Water	Passes

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AB-647

Anti-rust agent



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB-647 (Anti-rust agent Dodecene succinic acid)

Product properties:

AB-647 anti-rust agent is of good oil solubility and strong absorbability, a firm oil film will be formed on the metal surface when it is added into the oil, thus protecting the metal surface from being rusted and corroded. It is suitable for preparation of the anti-rust steam turbine oil, machine tool oil, hydraulic oil and hydraulic transmission oil as well as for preparation of the anti-rust sealing oil, lubrication and anti-rust oil, anti-rust compound and anti-rust grease etc. Its proposed amount is 0.03% to 1%.

Specification & index:

Items	Quality index	Test methods
PH value \geq	4.3	SH/T0298
Corrosive grade to copper sheet (100°C3b) \leq	1	GB/T5096
Flash point (open cup), °C \geq	90	GB/T 3536
Density kg/ m ³	Report	GB/T1884, GB/T1885
Kinematic Viscosity	Report	GB/T265
Phosphorus content (m%) \geq	8.5	SH/T0269
Liquid rust test	Rustless	GB/T11143
Acid value mgKOH/g	235-395	GB/T7304

PACKING AND STORAGE

Packing: The product is packed in 200 liter metal drum.

Storage: Please refer to SH/T0164, for transportation, storage and oil blending. Keep the temperature not higher than 60°C. For long-term storage the suggested temperature is lower than 50°C. The dry, clean and ventilating warehouse is recommended

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AB-747

Alkenyl Succinic Acid Ester



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB-747 Rust Inhibitor/Antirust Additive (Alkenyl Succinic Acid Ester)

This material is designed For Use in the Steam Turbine Oils, the Machine Oils, Hydraulic Oils and Gear Oils.

Application

AB-747 rust inhibitor/antirust additive is used in steam turbine oils, the machine oils, gear oils and industrial lubricants as the rust inhibitor. This additive can form preservative, protecting the surface of the metal from rust and corrosion, this product can form the strong oil film with the metal. It is a good performance rust inhibitor. It can also be used in the hydraulic transmission oils and lubricant grease.

Key Performance Benefits

- 1.Excellent antirust performance
- 2.Lower acid number
- 3.Good liquidity and oil solubility

Typical Value

Cu-Strip Corrosion (100°C, 3h), rating	≤1
Kinematic Viscosity, (100°C), mm ² /s	40-80
Rust test in liquid phase	Rustless
Acid number, mg KOH/g	50-150
pH	4.4-4.6

Recommended Dosage

The dosages of AB-747 Rust inhibitor/antirust additive generally recommended to blend lubricants are 0.02-0.8%

Packing: The product is packed in 20 kg/bag.

Storage: Keep the temperature not higher than 75°C. For long-term storage, the suggested temperature is lower than 45°C

AB-747-A



Anti- rust agent

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-747-A

(Anti- rust agent Alkenyl Succinic Acid Ester)

Product properties:

AB-747-A rust inhibitor/antirust additive is used in steam turbine oils, the machine oils, gear oils and industrial lubricants as the rust inhibitor. This additive is similar to AB-647, it can form preservative, protecting the surface of the metal from rust and corrosion, this product can form the strong oil film with the metal. AB-747-A is a good performance rust inhibitor. It can also be used in the hydraulic transmission oils and lubricant grease. The proposed dosage is 0.03% to 1%.

Specification & index:

Items	Quality index	Test methods
PH value \geq	4.3	SH/T0298
Corrosive grade to copper sheet (100°C3b) \leq	1	GB/T5096
Flash point (open cup), °C \geq	90	GB/T 3536
Density kg/ m ³	Report	GB/T1884, GB/T1885
Kinematic Viscosity	Report	GB/T265
Phosphorus content (m%) \geq	8.5	SH/T0269
Liquid rust test	Rustless	GB/T11143
Acid value mgKOH/g	100-200	GB/T7304

PACKING AND STORAGE

Packing: The product is packed in 200 liter metal drum.

Storage: Please refer to SH/T0164, for transportation, storage and oil blending. Keep the temperature not higher than 60°C. For long-term storage the suggested temperature is lower than 50°C. The dry, clean and ventilating warehouse is recommended.

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AB-747-LA



Anti-rust agent

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-747-LA

(Anti-rust agent Alkenyl Succinic Acid Ester)

Product properties:

AB-747-LA anti-rust agent / rust inhibitor is used in steam turbine oils, the machine oils, gear oils and industrial lubricants as the rust inhibitor. This additive is similar to AB-647, it can form preservative, protecting the surface of the metal from rust and corrosion, this product can form the strong oil film with the metal AB-747-LA is a good performance rust inhibitor. It can also be used in the hydraulic transmission oils and lubricant grease. The proposed dosage is 0.03% to 1%.

Specification & index:

Items	Quality index	Test methods
PH value \geq	4.3	SH/T0298
Corrosive grade to copper sheet (100°C3b) \leq	1	GB/T5096
Flash point (open cup), °C \geq	90	GB/T 3536
Density kg/ m ³	Report	GB/T1884, GB/T1885
Kinematic Viscosity	Report	GB/T265
Phosphorus content (m%) \geq	8.5	SH/T0269
Liquid rust test	Rustless	GB/T11143
Acid value mgKOH/g	50-60	GB/T7304

PACKING AND STORAGE

Packing: The product is packed in 200 liter metal drum.

Storage: Please refer to SH/T0164, for transportation, storage and oil blending. Keep the temperature not higher than 60°C. For long-term storage the suggested temperature is lower than 50°C. The dry, clean and ventilating warehouse is recommended.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

AB-701



Synthetic magnesium sulfonate

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-701

(SYNTHETIC MAGNESIUM SULFONATE)

DESCRIPTION

Having good high-temperature detergency property, this product has excellent acid neutralization capacity, and has good antirust ability. The internal combustion engine oil blended with this product can effectively reduce the high-temperature deposit on engine parts, and long effectively protect the engine; meanwhile avoid acid corrosion to the parts, and delay the oil-changing period. It is mainly used in preparing middle & high grade internal combustion engine oil.

REFERENCE DOSAGE

The reference dosage in oil products should be from 0.5% to 3.0%.

SPECIFICATIONS

ITEM	LIMITS	TEST METHOD
100°C Kinematics Viscosity, mm ² /s	≤150	GB/T 265
TBN mg KOH/g	≥390	SH/T0251
Density (15.6°C), kg/m ³	1000-1100	GB/T1884
Flash point (open) °C	≥180	GB/T267
Mg content %	8.5-10.0	SH/T0251
Moisture %	≤0.10	GB/T260
Turbidity % (m/m)	≤100	SH/T0028

PACKING AND STORAGE

200KG per 200L steel drum; 16.0MT per 20ft container

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AB-104



FLOW IMPROVER / POUR POINT DEPRESSANT

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-104 (FLOW IMPROVER / POUR POINT DEPRESSANT)

AB – 104 is specially developed Acrylic Polymer in Aromatic Solvents to be used as FLOW IMPROVER / POUR POINT DEPRESSANT.

TYPICAL PROPERTIES OF AB – 104

APPEARANCE (ASTM D1500)	: 1 MAX
AVG.SP.GRAVITY @ 40oC (ASTM D1298)	: 0.87 (TYPICAL)
SOLIDIFICATION POINT (ASTM D97)	: 25oC MIN
SOLUBILITY	: OIL SOLUBLE
POUR POINT DEPRESSION	: 15 / 18oC ON CRUDE OILS AT 350 PPM DOSAGE
FLASH POINT (ASTM D92)	: ABOVE 27oC typical
KINEMATIC	
VISCOSITY @ 40oC (ASTM D4445)	: 100 cSt Minimum 140 cSt Typical 200 cSt Maximum
ACTIVE CONTENT	: 50 ± 1 in Solvent Mixture

FLOW IMPROVER / POUR POINT DEPRESSANT is used mainly for easy transportation of crude oil at lower temperatures by improving Rheological properties of crude oil. AB – 104 helps in bringing Rheological properties of Crude Oil to optimum level and enhances transportation of the Crude Oil.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

AB-118

POUR POINT DEPRESSANT



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB-118 (POUR POINT DEPRESSANT)

AB 118 is a viscous Solution of Alkyl Methacrylate Polymer in Neutral Oils recommended for use as a Pour Point Depressant for Lubricating Base Oils. In finished Lubricants they are compatible with other commonly used additive.

AB 118 is used for Pour depressing Industrial and gear lubricants, Mono grade and Multi-grade crankcase oils. In addition to reducing the Pour Point, AB 118 is particularly effective in controlling low temperature viscosity under sheer conditions.

PRODUCT: AB 118

No.	PARAMETERS	SPECIFICATIONS
APPEARANCE		Clear Viscous Liquid
COLOUR		Pale Yellow to Amber
VISCOSITY@100 C	(ASTM D445)	100-400 CST
DENSITY@25C	(ASTM D4052)	0.91 Typical
FLASH POINT (COC) C	(ASTM D3278)	150 min

Recommended Dosage 0.1-0.5% for Group I and Group II oils.

Maximum Blending temp is about 90 C.

The product should be stored under the shade. Max outside temp about 40 C.

Product will be stable for at least 2 years if stored and handled properly.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

AB-119

POUR POINT DEPRESSANT



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB-119 (POUR POINT DEPRESSANT)

AB 119 is a viscous Solution of Alkyl Methacrylate Polymer in Neutral Oils recommended for use as a Pour Point Depressant for Lubricating Base Oils. In finished Lubricants they are compatible with other commonly used additive.

AB 119 is used for Pour depressing Industrial and gear lubricants, Mono grade and Multi-grade crankcase oils. In addition to reducing the Pour Point, AB 119 is particularly effective in controlling low temperature viscosity under sheer conditions.

PRODUCT: AB 119

No.	PARAMETERS	SPECIFICATIONS
APPEARANCE		Clear Viscous Liquid
COLOUR		Pale Yellow to Amber
VISCOSITY@100 C	(ASTM D445)	100-400 CST
DENSITY@25C	(ASTM D4052)	0.91 Typical
FLASH POINT (COC) C	(ASTM D3278)	150 min

Recommended Dosage 0.1-0.5% for Group I and Group II oils.

Maximum Blending temp is about 90 C.

The product should be stored under the shade. Max outside temp about 40 C.

Product will be stable for at least 2 years if stored and handled properly.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

AB-603



Zinc Di-Organo Dithiophosphate

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-603

ZDDP (ZINC DI-ORGANO DITHIOPHOSPHATE)

Additive AB 603 is based on a combination of different selected alcohol thus providing antiwear performance and enhanced thermal and hydrolytic stability.

In combination with other additives, additive AB 603 is especially used for the formulation of hydraulic fluids, industrial gear oils, engine oils, metal working fluids, and greases.

Specification	PARAMETERS	Unit
Form	Bright Yellow Liquid	
Density @ 15.6 °C:	1.10 – 1.15	g/ml
Viscosity @ 40°C:	200 Typical	c St
Viscosity @ 100°C:	13 Typical	c St
Flash Point OC:	200 Min.	°C
Total Alkali neutralization number per 1g of product (TBN) :	5-15	mgKOH
PH	5.7-6.5	
Zinc Content, (wt) :	9 - 10	%
Phosphorus, (wt) :	8 – 10	%
Sulphur, (wt) :	16 -20	%
Moisture Content:	0.1 Max.	%
Mineral Oil content:	15	%

Packing: 200/220 Kg. in New M. S. Drums, can be engineered upon customer request.

Safety & Handling: Refer Material Safety Data Sheet

Applications: ZDDP is widely used as antiwear additives with antioxidant and anticorrosive properties. They provide the following benefits;

1. Improved wear control
2. Longer lifetime of moving engine parts.
3. Reduced oil oxidation
4. Reduced viscosity increase

AB 604

ZDDP For Engine Oil



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB 604

ZDDP For Engine Oil

AB 604 is a ZDDP for engine oil, greases and hydraulic oils. It is used to impart oxidation stability as well as antiwear properties.

SPECIFICATIONS:

1. APPEARANCE	Clear to Slight Hazy Liquid
2. COLOUR	Pale Yellow to Amber
3. FLASH POINT (COC) C	150 min
4. %Zn	8-10% Typical
5. %P	7-9% Typical
6. %S	14-17%

Recommended dosage is 0.1-2 wt% in formulation depending on base oil, other additives and properties desired.

Maximum Blending temp is about 90 C.

The product should be stored under the shade. Max outside temp about 40 C.

Product will be stable for at least 1 year if stored and handled properly.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

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AB-5249



ANTIOXIDANT AND CORROSION INHIBITOR

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-5249

(ANTIOXIDANT AND CORROSION INHIBITOR)

Product Introduction

AB5249 is Zinc Butyl Octyl Primary Alkyl Dithiophosphate (ZDDP). This product features favorable anti-oxidation and anti-corrosion performance and anti-wear and extreme pressure properties. It can effectively protect engine bearings from corrosion, and prevent oil viscosity growth due to oxidation in a high temperature. The product is light in color and nice in oil solubility and additive compatibility. It can be widely adopted in various industrial lubricating oils such as gear oil and hydraulic oil. Combined with detergents and dispersants, the product can be used to produce all grades of engine oils. The percentage in usage is 0.5%-3.0% when adding this product into oil.

Product Quality Characteristics

Table 1 Quality Characteristics and Test Methods of Product

Item	Typical Value	Test Method
Appearance	Amber transparent liquid	Visual Inspection
Color Number	0.5	GB/T 6540 or ASTM D -1500
Flash Point (open), °C	185	GB/T3536 or ASTM D-92
Kinematic Viscosity(100°C), mm ² /s	10.8	GB/T265 or ASTM D-445
Density(20°C) ,kg/m ³	1089	GB/T2540 or ASTM D-4052
S Content, % (m/m)	16.0	ASTM D-4951
P Content, % (m/m)	7.8	ASTM D-4951
Zn Content, % (m/m)	9.1	ASTM D-4951
PH Value	5.7	SH/T 0394-1996, Annex A
Moisture, % (m/m),	0.02	GB/T260 or ASTM D-95
Mechanical Admixture, % (m/m),	0.02	GB/T 511 or AM-S90-009

Package, Storage and Shipment

- 1 The product is packed with iron barrels, with a net weight of 200Kg/barrel, suitable for all means of transport.
- 2 For short-term storage and transportation, the temperature of the product shall not surpass 75°C; for long-term storage it shall not surpass 45°C. The product is offered with a guarantee period of two years.
- 3 This product is non-flammable, non-explosive, and non-corrosive, thus needs no special protection. In case of accidental contact with skin, wash it off thoroughly with water and detergents.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

AB-4664



Booster for Engine Oil

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-4664 (TBN400 Booster for Engine Oil)

Product Introduction

With long-chain alkyl benzene sulfonic acid as a main raw material, super over based synthetic calcium sulfonate is prepared by neutralization and super high alkalization reaction. The product has excellent alkaline storage property, good oil solubility and strong acid neutralization capability, and it can immediately neutralize organic acid and inorganic acid in oil; meanwhile it also has excellent high-temperature detergency and thermal stability. It is a preferred additive for preparing over-based marine cylinder oil.

●Product Quality Characteristics

Quality Characteristics and Test Methods of Product

Item	Typical Value (premium)	Test Method
Appearance	Red-brown viscous liquid	Visual Inspection
Flash Point(open cup), °C	≥180	GB/T3536, ASTM D92
Kinematic Viscosity, (100°C) mm ² /s	≤130	GB/T265, ASTM D445
Density(20°C),kg/m ³	1150-1250	GB/T2540, ASTM D4052
Total Base Number, mgKOH/g	≥420	SH/T0251, ASTM D2896
Ca Content, %(m/m)	≥15	ASTM D-4951
S Content, %(m/m)	≥1.2	ASTM D-4951
Water Content, %(m/m)	≤0.2	GB/T 260, ASTM D-95
Machinery Impurities, %	≤0.06	GB/T 511,Din51592

Package, Storage and Shipment

- 1 The product is packed with iron barrels, with a net weight of 200Kg/barrel, suitable for all means of transport.
- 2 For short-term storage and transportation, the temperature of the product shall not surpass 75°C; for long-term storage it shall not surpass 45°C. The product is offered with a guarantee period of two years.
- 3 This product is non-flammable, non-explosive, and non-corrosive, thus needs no special protection. In case of accidental contact with skin, wash it off thoroughly with water and detergents.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

AB-601A



Over-based Synthetic Calcium Sulfonate

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-601A

(OVER-BASED SYNTHETIC CALCIUM SULFONATE/TBN400)

DESCRIPTION

A brownish-red liquid that provides excellent detergency in high-temperature, favorable acid neutralizing ability, and antirust performance; the lubricant blended with this product can reduce high-temperature deposit, protect the engine, avoid acid corrosion of equipment apparatus and prolong the date of oil exchange. Better compatibility could be obtained by adding in ash-less dispersant anti-oxidant and corrosion inhibitor. The product can be mainly used in blending high grade lubricating oil for internal combustion engines, heavy load diesel engine, especially engines using the fuel with high sulfur content.

REFERENCE DOSAGE

The reference dosage in oil products is from 1.5% to 3.0%, for marine engine oil the reference dosage is from 3.0% to 25.0%.

SEPECIFICATION

ITEM	TYPICAL DATA	TEST METHOD
Density (20°C), kg/m ³	1150-1250	GB/T 265
Oil soluble bolt	clean	LZA-BI-IA
Flash point (open) °C	≥180	GB/T267
Turbidity (JTU)	≤250	SH/T0028
Kinematics Viscosity (100°C), mm ² /s	≤180	GB/T 265
Total TBN, mg KOH/g	400	SH/T0251
Calcium, Wt%	≥14.0	SH/T0297
Water, Wt%	≤0.10	GB/T260
Impurity, Wt%	≤0.10	GB/T511

PACKING AND STORAGE

200KG per 200L steel drum; 16.0MT per 20ft container

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AB SH-TBN 400



Overbased Calcium Sulfonate

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB SH-TBN 400 (OVERBASED CALCIUM SULFONATE)

DESCRIPTION :

Overbased calcium sulfonate 400 TBN is a general purpose overbased calcium sulfonate typically used as a detergent and rust inhibitor in crankcase lubricants.

Applications include automotive, diesel, marine, railroad and stationary diesel lubricants.

Nominal dosages would range from 0.5 to 5.0 wt. % of the finished lubricant.

TBN BOOSTER – 400 is compatible with most mineral base oils, white oils, and synthetic base stocks.

Test	Result	Method
Appearance	Dark Brown	Visual
Colour, dilute	4 to 7	D 1500
Density@15°	1.08 to 1.12	ASTM D 1298
Viscosity @100°c	Min 30 CST	ASTM D 445
Flash Point , °C (COC)	180 - 220	ASTM D 92
Water Content, % Wt.	0.3 % Max	ASTM D 95
Calcium Content (Min)	13 to 16 %	ASTM D 4951
TBN ,MG of KOH/GM	400 – 410	ASTM D 2896



Hybase[®] C-402

overbased calcium sulfonate

Issued: 03-01-2001
Revised: 12-05-2005
Revision: 02

DESCRIPTION

Hybase C-402 is a 400 TBN overbased calcium sulfonate. Hybase C-402 is a general purpose overbased calcium sulfonate typically used as a detergent and rust inhibitor in crankcase lubricants. Hybase C-402 applications include automotive, diesel, marine, railroad and stationary diesel lubricants. Nominal dosages would range from 0.5 to 5.0 wt. % of the finished lubricant. Hybase C-402 is compatible with most mineral base oils, white oils, and synthetic base stocks.

TYPICAL DATA

<u>Properties</u>	<u>Typical Values</u>
Calcium, wt. %	15.2
Calcium Sulfonate, wt. %	18.5
Total Base Number	405
Water, wt. %	0.3
Viscosity @ 100°C, cSt	75
Flash Point, COC °C	220
Specific Gravity 15°C	1.200
Color (dilute)	5.0
Sediment, vol. %	0.02

HANDLING INFORMATION

Hybase C-402 is a liquid overbased calcium sulfonate and is normally handled at elevated temperatures. For general purposes, the following storage and handling temperatures are recommended:

<u>Storage</u>	<u>Handling</u>
60-80°C (140-176°F)	80-90°C (176-194°F)

SAFETY INFORMATION

For more extensive information on the safe handling and use of this product, see the Material Safety Data Sheet.

SHIPPING INFORMATION

Petroleum Oil, N.O.I.B.N.
Tank cars, tank trucks and non-returnable 55-gallon steel drums.

The information contained herein is correct to the best of our knowledge. Your attention is directed to the pertinent Material Safety Data Sheets for the products mentioned herein. All sales are subject to Chemtura's standard terms and conditions of sale, copies of which are available upon request and which are part of Chemtura's invoices and/or order acknowledgments. Except as expressly provided in Chemtura's standard terms and conditions of sale, no warranty, express or implied, including warranty of merchantability or fitness for particular purpose, is made with respect to the products described herein. Nothing contained herein shall constitute permission or recommendation to practice any invention covered by a patent without a license from the owner of the patent.

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AB-2400

Poly isobutylene



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB-2400

(POLY ISOBUTYLENE)

AB 2400 is Poly isobutylene .Is used for wide application in the formulation of various types of adhesives such as Pressure Sensitive Adhesive(PSA) and Hot Melt Adhesive(HMA).Modified Polyisobutylene is used for the fuel & lubricant additives.

Fuel Dispersants

Detergents serve to reduce deposits on the engine valve and emit low exhaust smoke, and also prolong the lifetime of engine.

AB2400 derivative is a performance material added to fuel detergent to provide excellent cleanliness.

Lubricant Dispersants

Dispersants serve to reduce and prevent deposits in engine. Those in commercial use are prepared from Polyisobutylene and they minimize engine deposits at low temperature.

PRODUCT: AB 2400

PROPERTIES	TEST METHOD	AB SPECIFICATION
APPEARANCE	Visual	Clear Viscous Liquid
COLOR ASTM Scale (Max)	(ASTM D-1500)	0.5
Specific gravity@15.6	(ASTM D-1298)	0.91-0.93
VISCOSITY@100 C Cst	(ASTM D445)	4200+350
Flash Point (COC) Deg C (Min)	(ASTM D-92)	250
Molecular weight (Number Average) GPC		2400+100
CHEMICAL		
Neutralisation Value (mg of KOH/g) (Max)	ASTM D-974	0.02
Water Content (PPm) (Max)	ASTM D-6304	50

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

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AB-541

Ashless dispersant



AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-541 (ASHLESS DISPERSANT)

Ashless dispersant AB 541 is one of polyisobutene bis-succinimide type lube oil additives. It has the features of prominent dispersancy, solubilization effect and excellent high temperature stability. The product can be mainly used in blending medium and high grade lubricating oil. It can not only solve the problem of low temperature oil sludge of engines but also reduce the sediment of lacquer and carbon deposit on high temperature parts of engine when combined with detergent.

Specification

Items	Limits	Test Methods
Appearance	Thick clear liquid	Visual
Kinetic Viscosity, 100°C, mm ² /s	70-150	ASTM D445
Flash point(open up), °C	180min	ASTM D92
Density, 20°C, kg/m ³	890-935	ASTM D1298
Mechanical impurities, %(m/m)	0.08max	ASTM D2273
Water, %(m/m)	0.08max	ASTM D95
Color, scale(diluted)	6.0max	ASTM D1500
Nitrogen, %(m/m)	1.1-1.3	ASTM D4951
TBN, mgKOH/g	15-30	ASTM D2896
Dispersibility, SDT dispersing test	55min	Oil sludge spot

Package, Storage and Transportation:

The product should be packed, marked, stored, transported and accepted on delivery according to SH0164. It is nonflammable, inexplusive and incorrosive.

Toxicity:

When using AB541, general precautions should be complied with for disposing dense chemicals and blending additives into base oil. It should be clean washed with detergent, soap and water if it contacts skin.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

AB-551

Ashless dispersant



AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-551 (ASHLESS DISPERSANT)

Ashless dispersant AB551 is polyisobutene polysuccinimide. It has the features of excellent dispersancy and prominent high temperature stability. It can not only solve the problem of low temperature oil sludge of engines but also reduce the sediment of varnish and carbon deposit on parts of engine when combined with metal-type detergent. It can be mainly used in blending medium and high grade lubricating oil for internal combustion engines, especially for diesel engines.

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	300-400	ASTM D445
Flash point(open up), °C	170min	ASTM D92
Density, 20°C, kg/m ³	900-930	ASTM D1298
Nitrogen, %(m/m)	0.8-1.2	ASTM D4951
Base number, mgKOH/g	15.0-30.0	ASTM D2896

Package, Storage and Transportation:

The product should be packed, marked, stored, transported and accepted on delivery according to SH0164. It is nonflammable, inexplosive and incorrosive.

Toxicity:

When using AB551, general precautions should be complied with for disposing dense chemicals and blending additives into base oil. It should be clean washed with detergent, soap and water if it contacts skin.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

AB-203

DISPERSANT



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB-203

(High Molecular Weight Polyisobutylene Succinimide)

BRIEF INTRODUCTION

This product is primarily used for blending high quality engine oils of SG, CF-4 and the higher grades, especially environment-friendly internal combustion engine oil. The formula dosage can be reduced significantly in blending engine oils of SE, SF or CD. It is also used to blend antifouling agent for petrochemical plant. This product is brown transparent thick liquid. The recommended dosage in oil is 1.0-4.0%.

CHARACTERISTICS

Excellent high-temperature detergency and low-temperature dispersion performance Free of chlorine, confirming to environmental requirements effectively inhibit the generation of coke Preserve alkalinity well.

PRODUCT FEATURES AND TEST METHODS

ITEM	INDICE	TEST METHOD
Density (20°C), kg/m ³	920-980	GB/T1884
Kinematics Viscosity (100°C), mm ² /s	300-450	GB/T265
Flash Point (open cup), °C	≥170	GB/T267
TBN, mg KOH/g	≥15	GB/T7304
Nitrogen, m%,	≥1.0	SH/T0297

PACKING AND STORAGE

Packing: The product is packed in 200 liter metal drum (net weight: 180kg/drum).

Storage: Please refer to SH/T0164, for transportation, storage and oil blending. Keep the temperature not higher than 60°C. For long-term storage the suggested temperature is lower than 50°C. The dry, clean and ventilating warehouse is recommended.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

AB-6249



ANTIOXIDANT AND CORROSION INHIBITOR

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB-6249

(ANTIOXIDANT AND CORROSION INHIBITOR)

Product Introduction

AB6249 is Zinc Butyl Octyl Primary Alkyl Dithiophosphate (ZDDP). This product features favorable anti-oxidation and anti-corrosion performance and anti-wear and extreme pressure properties. It can effectively protect engine bearings from corrosion, and prevent oil viscosity growth due to oxidation in a high temperature. The product is light in color and nice in oil solubility and additive compatibility. It can be widely adopted in various industrial lubricating oils such as gear oil and hydraulic oil. Combined with detergents and dispersants, the product can be used to produce all grades of engine oils. The percentage in usage is 0.5%-3.0% when adding this product into oil.

Product Quality Characteristics

Table 1 Quality Characteristics and Test Methods of Product

Item	Typical Value	Test Method
Appearance	Amber transparent liquid	Visual Inspection
Color Number	0.5	GB/T 6540 or ASTM D -1500
Flash Point (open), °C	185	GB/T3536 or ASTM D-92
Kinematic Viscosity(100°C), mm ² /s	10.8	GB/T265 or ASTM D-445
Density(20°C) ,kg/m ³	1089	GB/T2540 or ASTM D-4052
S Content, % (m/m)	16.0	ASTM D-4951
P Content, % (m/m)	7.8	ASTM D-4951
Zn Content, % (m/m)	9.1	ASTM D-4951
PH Value	5.7	SH/T 0394-1996, Annex A
Moisture, % (m/m),	0.02	GB/T260 or ASTM D-95
Mechanical Admixture, % (m/m),	0.02	GB/T 511 or AM-S90-009

Package, Storage and Shipment

- 1 The product is packed with iron barrels, with a net weight of 200Kg/barrel, suitable for all means of transport.
- 2 For short-term storage and transportation, the temperature of the product shall not surpass 75°C; for long-term storage it shall not surpass 45°C. The product is offered with a guarantee period of two years.
- 3 This product is non-flammable, non-explosive, and non-corrosive, thus needs no special protection. In case of accidental contact with skin, wash it off thoroughly with water and detergents.

TECHNICAL DATA SHEET N. 325

INHIBITOR ELC

*100% organic base, liquid corrosion inhibitor for Heavy Duty antifreeze manufacturing.
Borates, nitrates, amines, phosphates and silicate free formulation.*

1) Chemical-Physical Properties of INHIBITOR ELC

Composition: aqueous solution of organic acids salts. The formulation is perfectly balanced in order to provide with a *long life* protection all the metals of the engine cooling system. The product provide heavy duty engines with an increased protection from cavitation and hot scaling damages.

Appearance:	Homogeneous liquid
Colour:	pale yellow
Specific gravity at 20/4°C:	1,125
Solubility in water:	complete
Freezing point:	-10°C
Storage stability:	12 months

2) Directions for Use

The requirements of ASTM D 6210 or ASTM 4985 are fully met by adding 8% w/w of INHIBITOR ELC to ethylene glycol (MEG) or propylene glycol (MPG).

3) Operative Instructions to Manufacture Antifreeze with INHIBITOR ELC

- A) Pump the glycol in a mixer or a tank.
- B) Stirr gently the glycol or recirculate it by pumping.
- C) Pump the **INHIBITOR ELC** in the same mixer / tank.
- D) Stirr or recirculate for 20/30 minutes to homogeneize the mix of glycol and **INHIBITOR ELC**

4) Typical Characteristics of Antifreeze Manufactured with Inhibitor ELC and Comparisons

CHARACTERISTICS	ELC 8% MEG 92% Total 100%	ASTM D 6210 LIMITS
Appearance	Clear	***
Water, mass %	3,7	5 max
Reserve alkalinity ml	5,7	***
pH (aqueous solution 50%)	8,2	7,5-11,0
Specific gravity 15/15°C	1,122	1,110-1,145
Hard waters resistance	Clear	***

4.1) ASTM D 1384 – Corrosion Test for Engine Coolants in Glassware

METALS	ELC 8% MEG 92% Total 100% weight loss mg/specimen	ASTM D 6210 LIMITS weight loss mg/specimen
Copper	0,8	10 max
Solder	1,4	30 max
Brass	1,6	10 max
Steel	1,1	10 max
Cast Iron	1,9	10 max
Aluminium	1,3	30 max

4.2) ASTM D 4340 - Corrosion of Cast Aluminium Alloys in Engine Coolants Under Heat Rejecting Conditions

METALS	ELC 8% MEG 92% Total 100% weight loss mg/cm ² /week	ASTM D 6210 LIMITS weight loss mg/cm ² /week
Aluminium	0,5	1,0 max



4.3) ASTM D 2570 – Simulated Service Corrosion Testing of Engine Coolants

METALS	ELC 8% MEG 92% Total 100% weight loss mg/specimen	ASTM D 6210 LIMITS weight loss mg/specimen
Copper	1,8	20 max
Solder	3,2	60 max
Brass	1,6	20 max
Steel	1,9	20 max
Cast Iron	0,7	20 max
Aluminium	4,6	60 max

4.4) ASTM D 2809 - Cavitation Corrosion and Erosion Characteristics of Aluminium Pumps With Engine Coolants

METALS	ELC 8% MEG 92% Total 100% Visual rating	ASTM D 6210 LIMITS Visual rating
Aluminium	10	8 min.

5) Standards and Specifications Met By INHIBITOR ELC (Partial List)

5.1) National, International and Military Standards Met by the Antifreeze Manufactured with INHIBITOR ELC

BS 6580 (GB)	FVV Heft R 443 (D)	Afnor R 15/601 (1) (F)	ASTM D 6210 and 6211
SAE J 1034 (1)	JIS K 2234 (1) (J)	KSM 2142 (K)	NATO S 759
CUNA NC 956-16 (I)	UNE 26361-88 (E)	EMPA (CH)	E/L 1415c (MIL Italy)

5.2) OEM Specifications Met by the Antifreeze Manufactured with INHIBITOR ELC:

-CAT EC-1 -Navistar B1 Type III – Cummins CES 14603 – John Deere HD24 MAN 324 – Mercedes DBL 325 – Detroit Diesel /SE298 – Land Rover C.S. – GM 1825/1899 H.T. – MTU 5048 – Volvo Saab Scania 6901 Kenworth R 026-170-97 – Mack 014GS7009 – Freighliner 48-22880 - New Holland WSN-M97B18-D – Paccar C.S. –Peterbilt 8502.002 - IVECO 18-1830

(1) Except reserve alkalinity

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INHIBITOR FF3

-Liquid Corrosion Inhibitor for DOT 3, DOT 4 and DOT 5.1 Brake Fluids Manufacturing-

Chemical Nature: solution of oxidation and corrosion inhibitors in glycols and glycol ethers.

TYPICAL VALUES

Characteristics	Unit	Values	Method
Appearance at 20°C	-	Homogeneous liquid	Visual
Colour	Pt-Co	200	ASTM D 1209
Specific Gravity at 20/4°C	g/cm ³	1,070	ASTM D 891/A
pH (1)	-	8,5	ASTM D 1287

Note 1: 2% w/w in Diethylene Glycol (DEG)

OTHER TYPICAL CHARACTERISTICS

Pour Point: <-30°C
Stability: >12 months

APPLICATION NOTES

The following amounts (% w/w) of **INHIBITOR FF3** must be added to the proper basestock (glycol, glycol ethers and boric esters) to meet the requirements of S 5.1.6 (Corrosion) – F.M.V.S.S. N° 116 :

DOT 3 BRAKE FLUID	DOT 4 BRAKE FLUID	DOT 5.1 BRAKE FLUID
2%	3%	3%



TYPICAL CHARACTERISTICS OF THE BRAKE FLUIDS MANUFACTURED WITH INHIBITOR FF3

CHARACTERISTICS	B.F. DOT 3	B.F. DOT 4	B.F. DOT 5.1	F.M.V.S.S. N° 116 SPEC. LIMITS
Appearance	Clear	Clear	Clear	Clear
pH	10,4	8,2	7,7	7,0-11,5
CORROSION TEST (Weight Loss mg/cm²)				
Copper	0,02	0,02	0,02	0,4 max.
Tinned iron	0,02	0,00	0,02	0,2 max.
Tin	0,04	0,06	0,04	0,4 max.
Brass	0,01	0,01	0,02	0,4 max.
Steel	0,05	0,01	0,01	0,2 max.
Cast-Iron	0,02	0,03	0,02	0,2 max.
Aluminium	0,01	0,02	0,01	0,1 max.
Final pH	10,1	8,0	7,4	7,0-11,5

STOCKAGE

INHIBITOR FF3 is highly hygroscopic. Stock in well-closed containers in a dry place.

LABELLING

Refers to MSDS

TECHNICAL DATA SHEET N. 327

INHIBITOR HD

*Inorganic base, liquid corrosion inhibitor for heavy duty antifreeze manufacturing.
Super-stabilized silicates formulation. Amines and phosphates free formulation.*

1) Chemical-Physical Properties of INHIBITOR HD

Composition: aqueous solution of inhibiting salts. The formulation is perfectly balanced in order to provide with protection to all the metals of the engine cooling system. The product provide heavy duty engines with an increased protection from cavitation and hot scaling damages.

Appearance:	Homogeneous liquid
Colour:	pale yellow
Specific gravity at 20/4°C:	1,35
Solubility in water:	complete
Freezing point:	-8°C
Storage stability:	12 months

2) Directions for Use

The requirements of ASTM D 6210 are fully met by adding 4% w/w of INHIBITOR HD to ethylene glycol (MEG) or propylene glycol (MPG). In case higher reserve alkalinity is required or very diluted operative conditions are foreseen, it is advisable to add 5% of INHIBITOR HD to MEG or MPG.

3) Operative Instructions to Manufacture Antifreeze with INHIBITOR HD

- A) Pump the glycol in a mixer or a tank.
- B) Stirr gently the glycol or recirculate it by pumping.
- C) Pump the **INHIBITOR HD** in the same mixer / tank.
- D) Stirr or recirculate for 20/30 minutes to homogeneize the mix of glycol and **INHIBITOR HD**.

4) Typical Characteristics of Antifreeze Manufactured with Inhibitor HD and Comparisons

CHARACTERISTICS	HD 4% MEG 96% Total 100%	HD 5% MEG 95% Total 100%	ASTM D 6210 LIMITS
Appearance	Clear	Clear	***
Water, mass %	3,2	3,8	5 max
Reserve alkalinity ml	15,4	19,1	***
pH (aqueous solution 50%)	9,4	9,5	7,5-11,0
Specific gravity 15/15°C	1,125	1,127	1,110-1,145
Hard waters resistance	Clear	Clear	***

4.1) ASTM D 1384 – Corrosion Test for Engine Coolants in Glassware

METALS	HD 4% MEG 96% Total 100% weight loss mg/specimen	HD 5% MEG 95% Total 100% weight loss mg/specimen	ASTM D 6210 LIMITS weight loss mg/specimen
Copper	0,8	0,8	10 max
Solder	2,2	1,6	30 max
Brass	0,8	0,7	10 max
Steel	0,1	0,1	10 max
Cast Iron	0,2	0,1	10 max
Aluminium	0,6	0,4	30 max

4.2) ASTM D 4340 - Corrosion of Cast Aluminium Alloys in Engine Coolants Under Heat Rejecting Conditions

METALS	HD 4% MEG 96% Total 100% weight loss mg/cm ² /week	HD 5% MEG 95% Total 100% weight loss mg/cm ² /week	ASTM D 6210 LIMITS weight loss mg/cm ² /week
Aluminium	0,6	0,4	1,0 max

4.3) ASTM D 2570 – Simulated Service Corrosion Testing of Engine Coolants

METALS	HD 4% MEG 96% Total 100% weight loss mg/specimen	HD 5% MEG 95% Total 100% weight loss mg/specimen	ASTM D 6210 LIMITS weight loss mg/specimen
Copper	1,1	0,9	20 max
Solder	4,2	2,6	60 max
Brass	1,0	0,8	20 max
Steel	0,3	0,2	20 max
Cast Iron	1,6	0,3	20 max
Aluminium	2,2	1,8	60 max

4.4) ASTM D 2809 - Cavitation Corrosion and Erosion Characteristics of Aluminium Pumps With Engine Coolants

METALS	HD 4% MEG 96% Total 100% Visual rating	HD 5% MEG 95% Total 100% Visual rating	ASTM D 6210 LIMITS Visual rating
Aluminium	9	10	8 min.

4.5) ASTM D2966 CAVITATION EROSION – CORROSION CHARACTERISTICS OF ALUMINIUM IN ENGINE COOLANTS USING ULTRASONIC ENERGY

METALS	HD 4% MEG 96% Total 100 % Comparative Rating	HD 5% MEG 95% Total 100 % Comparative Rating	ASTM D 6210 LIMITS Comparative Rating
Aluminium	9	10	na

5) Standards and Specifications Met By INHIBITOR HD (Partial List)

5.1) National, International and Military Standards Met by the Antifreeze Manufactured with INHIBITOR HD

BS 6580 (GB)	FVV Heft R 443 (D)	Afnor R 15/601 (F)	ASTM D 3306/6210
SAE J 1034	JIS K 2234 (J)	KSM 2142 (K)	NATO S 759
CUNA NC 956-16 (I)	UNE 26361-88 (E)	EMPA (CH)	E/L 1415c (MIL Italy)

5.2) OEM Specifications Met by the Antifreeze Manufactured with INHIBITOR HD:

Cummins 3666132/85T82 - Detroit Diesel 7SE298 - Mack 014GS17004 – Navistar B1 – Caterpillar CCS – Paccar 70214-A-010 – JI Case JIC 501 – Massey C.C. M 1130A – John Deere JDM HD24 – Versatile 42M - Chrysler MS 7170 – Ford ESE M97B18C/ESE M97B44A – GM 1825M /1899M H.T. – Kenworth R026-170-97 – Volvo Truck 1286083/02 – Freighliner 48-22880 – New Holland WSN-M97B18-D - Peterbilt 8502.002 – MAN 324 – MTU MTL 5048 – Lada TTM VAZ 197.717.97 – IVECO 55.523-1

6) Customization of the product

INHIBITOR HD can be customized on request, to manufacture antifreeze meeting special standards or specifications.

INHIBITOR HD can also be customized to meet the characteristics of antifreeze samples eventually submitted by our customers.

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TECHNICAL DATA SHEET N. 223

INHIBITOR P-715 S

Liquid corrosion inhibitor for high temp. stable and high reserve alkalinity antifreeze manufacturing – 100% Silanized Organic Acid Technology, NAP Free formulation

1) Chemical-Physical Properties of INHIBITOR P-715 S

Composition: aqueous solution of organic acids salts. The formulation is perfectly balanced in order to provide with a *long life* protection all the metals of the engine cooling system, especially aluminium alloys and light metals.

Appearance:	Homogeneous liquid
Color:	pale yellow (colored on request)
Specific gravity at 20/4°C:	1,291
Solubility in water:	complete
Freezing point:	-18°C
Storage stability:	12 months

2) Directions for Use

The requirements of ASTM D 3306 are fully met by adding 8,0% w/w of INHIBITOR P-715 S to ethylene glycol (MEG) or propylene glycol (MPG).

3) Operative Instructions to Manufacture Antifreeze with INHIBITOR P-715 S

- A) Pump the glycol in a mixer or a tank.
- B) Stirr gently the glycol or recirculate it by pumping.
- C) Pump the **INHIBITOR P-715 S** in the same mixer / tank.
- D) Stirr or recirculate for 20/30 minutes to homogeneize the mix of glycol and **INHIBITOR P-715 S**.

4) Typical Characteristics of Antifreeze Manufactured with Inhibitor P-715 and Comparisons

CHARACTERISTICS	P-715 S 8% MEG 92% Total 100%	ASTM D 3306 LIMITS
Appearance	Clear	***
Water, mass %	2,3	5 max
Reserve alkalinity ml	9,5	***
pH (aqueous solution 50%)	8,2	7,5-11,0
Specific gravity 15/15°C	1,125	1,110-1,145
Hard waters resistance VW PV 1426	No precipitates	***

4.1) ASTM D 1384 – Corrosion Test for Engine Coolants in Glassware

METALS	P-715S 8 % MEG 92% Total 100% weight loss mg/specimen	ASTM D 3306 LIMITS weight loss mg/specimen
Copper	0,8	10 max
Solder	1,4	30 max
Brass	1,6	10 max
Steel	1,1	10 max
Cast Iron	1,9	10 max
Aluminium	0,1	30 max

4.2) ASTM D 1384 - Supplemental Corrosion Test on Light-weight Metal Specimens

METALS	P-715S 8% MEG 92% Total 100% Weight loss g/m2	VW TL 774 Type D Limits weight loss g/m2
AlSi12	0,4	2 max
AlMn	0,3	2 max
AlSi10Mg(Cu) for V8 engines	0,2	2 max

4.3) ASTM D 4340 - Corrosion of Cast Aluminium Alloys in Engine Coolants Under Heat Rejecting Conditions

METALS	P-715S 8,0% MEG 92% Total 100% weight loss mg/cm2/week	ASTM D 3306 LIMITS weight loss mg/cm2/week
Aluminium	0,4 (Note 1)	1,0 max

(Note 1): no deposit according to VW TL 774 G

4.4) ASTM D 2570 – Simulated Service Corrosion Testing of Engine Coolants

METALS	P-715 S 8% MEG 82% Total 100% weight loss mg/specimen	ASTM D 3306 LIMITS weight loss mg/specimen
Copper	1,9	20 max
Solder	3,2	60 max
Brass	3,4	20 max
Steel	2,8	20 max
Cast Iron	3,9	20 max
Aluminium	0,3	60 max

4.5) ASTM D 2809 - Cavitation Corrosion and Erosion Characteristics of Aluminium Pumps With Engine Coolants

METALS	P-715S 8% MEG 82% Total 100% Visual rating	ASTM D 3306 LIMITS Visual rating
Aluminium	10	8 min.

5) Standards and Specifications Met By INHIBITOR P-715 S (Partial List)

5.1) National, International and Military Standards Met by the Antifreeze Manufactured with INHIBITOR P-715 S

Afnor R 15/601 (F)	FVV Heft R 443 (D)	BS 6580 (GB)	ASTM D 3306 and 4985
SAE J 1034 (1)	JIS K 2234 (1) (J)	KSM 2142 (K)	NATO S 759
CUNA NC 956-16 (I)	UNE 26361-88 (E)	EMPA (CH)	E/L 1415c (MIL Italy)

5.2) OEM Specifications Met by the Antifreeze Manufactured with INHIBITOR P-715 S:

VW TL 774 G

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TECHNICAL DATA SHEET N. 199

INHIBITOR P-715

100% organic corrosion inhibitor for high temp. stable and high reserve alkalinity antifreeze manufacturing - Borates, nitrites, nitrates, amines, phosphates silicates free formulation.

1) Chemical-Physical Properties of INHIBITOR P-715

Composition: aqueous solution of organic acids salts. The formulation is perfectly balanced in order to provide with a *long life* protection all the metals of the engine cooling system, especially aluminium alloys and light metals.

Appearance:	Homogeneous liquid
Color:	pale yellow (colored on request)
Specific gravity at 20/4°C:	1,291
Solubility in water:	complete
Freezing point:	-18°C
Storage stability:	12 months

2) Directions for Use

The requirements of ASTM D 3306, BS 6580 or AFNOR 15-601 are fully met by adding 10,0% w/w of INHIBITOR P-715 to ethylene glycol (MEG) or propylene glycol (MPG). 11,0% w/w of Inhibitor P-715 added to ethylene glycol or propylene glycol, provides the antifreeze with a reserve alkalinity >12 ml HCl 0,1 a reserve acidity > 2 ml NaOH 0.1 N and a pH 7-8 (33% in dist. water).

3) Operative Instructions to Manufacture Antifreeze with INHIBITOR P-715

- A) Pump the glycol in a mixer or a tank.
- B) Stirr gently the glycol or recirculate it by pumping.
- C) Pump the **INHIBITOR P-715** in the same mixer / tank.
- D) Stirr or recirculate for 20/30 minutes to homogeneize the mix of glycol and **INHIBITOR P-715**.

4) Typical Characteristics of Antifreeze Manufactured with Inhibitor P-715 and Comparisons

CHARACTERISTICS	P-715 11,0% MEG 89,0% Total 100%	ASTM D 3306 LIMITS
Appearance	Clear	***
Water, mass %	2,2	5 max
Reserve alkalinity (pH 5,5)	13,2 (1)	***
Reserve acidity	2,7 (2)	***
pH (solution 50%)	7,9	7,5-11,0
pH (solution 33%)	7,8 (3)	***
Specific gravity 15/15°C	1,135	1,110-1,145
Hard waters resistance	***	***

Notes: 1) Specification limit according to PSA B 715110: 12-14

2) Specification limit according to PSA B 715110: 2-4.

3) Specification limit according to PSA B 715110: 7-8 (33% in dist. water).

4.1) ASTM D 1384 – Corrosion Test for Engine Coolants in Glassware

METALS	P-715 11,0% MEG 89,0% Total 100% weight loss mg/specimen	ASTM D 3306 LIMITS weight loss mg/specimen
Copper	1,1	10 max
Solder	1,2	30 max
Brass	0,9	10 max
Steel	0,4	10 max
Cast Iron	1,3	10 max
Aluminium	2,7	30 max

4.3) ASTM D 4340 - Corrosion of Cast Aluminium Alloys in Engine Coolants Under Heat Rejecting Conditions

METALS	P-715 11,0% MEG 89,0% Total 100% weight loss mg/cm ² /week	ASTM D 3306 LIMITS weight loss mg/cm ² /week
Aluminium	0,4	1,0 max

4.4) ASTM D 2570 – Simulated Service Corrosion Testing of Engine Coolants

METALS	P-715 11,0% MEG 89,0% Total 100% weight loss mg/specimen	ASTM D 3306 LIMITS weight loss mg/specimen
Copper	1,9	20 max
Solder	3,2	60 max
Brass	3,4	20 max
Steel	2,8	20 max
Cast Iron	3,9	20 max
Aluminium	5,4	60 max

4.5) ASTM D 2809 - Cavitation Corrosion and Erosion Characteristics of Aluminium Pumps With Engine Coolants

METALS	P-715 11,0% MEG 89,0% Total 100% Visual rating	ASTM D 3306 LIMITS Visual rating
Aluminium	9	8 min.

5) RESISTANCE TO HIGH TEMPERATURE – GFC-CEC-FL-21-A-01

	P-715 11,0% MEG 89,0% Total 100%	GFC-CEC-FL-21-A-01 Limits
pH value after test	7,2	+/- 2 change
Volume deposit after test	2,3 ml	3 ml max

5) Standards and Specifications Met By INHIBITOR P-715 (Partial List)

5.1) National, International and Military Standards Met by the Antifreeze Manufactured with INHIBITOR P-715

Afnor R 15/601 (F)	FVV Heft R 443 (D)	BS 6580 (GB)	ASTM D 3306 and 4985
SAE J 1034 (1)	JIS K 2234 (1) (J)	KSM 2142 (K)	NATO S 759
CUNA NC 956-16 (I)	UNE 26361-88 (E)	EMPA (CH)	E/L 1415c (MIL Italy)

5.2) OEM Specifications Met by the Antifreeze Manufactured with INHIBITOR P-715:

PSA B 715110

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TECHNICAL DATA SHEET N. 110/C

INHIBITOR SB

*100% organic base, liquid corrosion inhibitor for "long life" antifreeze manufacturing.
Borates, nitrites, nitrates, amines, phosphates and silicate free formulation.*

1) Chemical-Physical Properties of INHIBITOR SB

Composition: aqueous solution of organic acids salts. The formulation is perfectly balanced in order to provide with a *long life* protection all the metals of the engine cooling system, especially aluminium alloys and light metals.

Appearance:	Homogeneous liquid
Colour:	pale yellow
Specific gravity at 20/4°C:	1,125
Solubility in water:	complete
Freezing point:	-10°C
Storage stability:	12 months

2) Directions for Use

The requirements of ASTM D 3306 or ASTM D 4985 , are fully met by adding 8% w/w of INHIBITOR SB to ethylene glycol (MEG) or propylene glycol (MPG).

3) Operative Instructions to Manufacture Antifreeze with INHIBITOR SB

- A) Pump the glycol in a mixer or a tank.
- B) Stir gently the glycol or recirculate it by pumping.
- C) Pump the **INHIBITOR SB** in the same mixer / tank.
- D) Stir or recirculate for 20/30 minutes to homogeneize the mix of glycol and **INHIBITOR SB** .

4) Typical Characteristics of Antifreeze Manufactured with Inhibitor SB

CHARACTERISTICS	SB 8% MEG 92% Total 100%	ASTM D 3306 LIMITS
Appearance	Clear	***
Water, mass %	3,8	5 max
Reserve alkalinity ml	5,6	***
pH (aqueous solution 50%)	8,2	7,5-11,0
Specific gravity 15/15°C	1,122	1,110-1,145
Hard waters resistance	Clear	***

4.1) ASTM D 1384 – Corrosion Test for Engine Coolants in Glassware

METALS	SB 8% MEG 92% Total 100% weight loss mg/specimen	ASTM D 3306 LIMITS weight loss mg/specimen
Copper	0,8	10 max
Solder	1,4	30 max
Brass	1,6	10 max
Steel	1,1	10 max
Cast Iron	1,9	10 max
Aluminium	1,3	30 max

4.1.1) Modified* ASTM D 1384 – Corrosion Test for Engine Coolants in Glassware

Metals	SB 8% MEG 92% Total 100% weight loss mg/specimen	ASTM D 3306 LIMITS weight loss mg/specimen
Copper	1,9	10 max
Solder	3,0	30 max
Brass	1,8	10 max
Steel	-0,1	10 max
Cast Iron	0,7	10 max
Aluminium	4,6	30 max
Aluminium (AA 3003-H14)	6,8	30 max

*as per CHR-MS 12106



TECNOFLUID S.r.l.

4.3) ASTM D 4340 - Corrosion of Cast Aluminium Alloys in Engine Coolants Under Heat Rejecting Conditions

METALS	SB 8% MEG 92% Total 100% weight loss mg/cm2/week	ASTM D 3306 LIMITS weight loss mg/cm2/week
Aluminium	0,5	1,0 max

4.4) ASTM D 2570 – Simulated Service Corrosion Testing of Engine Coolants

Metals	SB 8% MEG 92% Total 100% weight loss mg/specimen	ASTM D 3306 LIMITS weight loss mg/specimen
Copper	1,8	20 max
Solder	3,2	60 max
Brass	1,6	20 max
Steel	1,9	20 max
Cast Iron	0,7	20 max
Aluminium	4,6	60 max

4.5) ASTM D 2809 - Cavitation Corrosion and Erosion Characteristics of Aluminium Pumps With Engine Coolants

METALS	SB 8% MEG 92% Total 100% Visual rating	ASTM D 3306 LIMITS Visual rating
Aluminium	9	8 min.

4.5.1) Modified* ASTM D 2809 - Cavitation Corrosion and Erosion Characteristics of Aluminium Pumps With Engine Coolants

Metals	SB 8% MEG 92% Total 100% Visual Rating	CHR-MS 12106. LIMIT Visual Rating
Aluminium	8	8 min

*as per SAE Paper 1999-01-0136



TECNOFLUID S.r.l.

4.6) ASTM D 6208 Repassivation Potential of Aluminium and Its Alloy by Galvanostatic Measurement

Metals	SB 8% MEG 92% Total 100% mV	CHR-MS 12106. LIMIT mV
Aluminium AA 3003 H14	-450	-400 min
Visual examination : no pitting		

4.7) Effects on Organic Finishes according to ASTM D 1882 and on Cooling System Hoses according CHR-MS-EA-122 : none registered

5) Standards and Specifications Met By INHIBITOR SB (Partial List)

5.1) National, International and Military Standards Met by the Antifreeze Manufactured with INHIBITOR SB

BS 6580 (GB)	FVV Heft R 443 (D)	Afnor R 15/601 (1) (F)	ASTM D 3306 and 4985
SAE J 1034 (1)	JIS K 2234 (1) (J)	KSM 2142 (K)	NATO S 759
CUNA NC 956-16 (I)	UNE 26361-88 (E)	EMPA (CH)	E/L 1415c (MIL Italy)

5.2) OEM Specifications Met by the Antifreeze Manufactured with INHIBITOR SB:

Porsche/VW/Audi/Seat/Skoda TL 774 D & D/F * Mercedes MB 325.3 * Ford ESE M97B49-A * CUMMINS 85T8-2 (1) * Man N. Man 248 and 324 * Wartsilia 32-9011 (C.W.) * Pegaso * GM US 6277 M * Renault 41-01-001 * Ford WSS-M97B44-C * Chrysler MS 9176 * Chrysler MS 12106 * Cummins 90T8-4 * Mack 014GS17004 * Man B&W D 36 5600 * GM 1899M (1) * Navistar B-1, Type III * Volvo (Reg. N° 260) * Ford ESD M97 B49-A * Opel GM QL 130100 * Leyland Trucks LTS 22 AF 10 * John Deere H 24 B1 and C1 * Deutz/MWN 0199-2091 2 Auflage (C.W.) *Mack 014GS17004.

(1) Except reserve alkalinity – (C.W.) = coolant water

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TECHNICAL DATA SHEET N. 100

INHIBITOR SNA

*Inorganic base, liquid corrosion inhibitor for high standard antifreeze manufacturing.
Super-stabilized silicates formulation. Nitrites, amines, phosphates free formulation.*

1) Chemical-Physical Properties of INHIBITOR SNA

Composition: aqueous solution of inhibiting salts. The formulation is perfectly balanced in order to protect all the metals of the engine cooling system, especially aluminium alloys.

Appearance:	Homogeneous liquid
Colour:	pale yellow
Specific gravity at 20/4°C:	1,35
Solubility in water:	complete
Freezing point:	-8°C
Storage stability:	12 months

2) Directions for Use

The requirements of ASTM D 3306 ASTM or D 4985, are fully met by adding 4% w/w of INHIBITOR SNA to ethylene glycol (MEG) or propylene glycol (MPG).

In case higher reserve alkalinity is required or very diluted operative conditions are foreseen, it is advisable to add 5% of INHIBITOR SNA to MEG or MPG.

3) Operative Instructions to Manufacture Antifreeze with INHIBITOR SNA

- A) Pump the glycol in a mixer or a tank.
- B) Stir gently the glycol or recirculate it by pumping.
- C) Pump the **INHIBITOR SNA** in the same mixer / tank.
- D) Stir or recirculate for 20/30 minutes to homogeneize the mix of glycol and **INHIBITOR SNA**.

4) Typical Characteristics of Antifreeze Manufactured with Inhibitor SNA and Comparisons

CHARACTERISTICS	SNA 4% MEG 96% Total 100%	SNA 5% MEG 95% Total 100%	ASTM D 3306 LIMITS
Appearance	Clear	Clear	***
Water, mass %	3,2	3,8	5 max
Reserve alkalinity ml	15,4	19,1	***
pH (aqueous solution 50%)	9	9,1	7,5-11,0
Specific gravity 15/15°C	1,125	1,127	1,110-1,145
Hard waters resistance	Clear	Clear	***

4.1) ASTM D 1384 – Corrosion Test for Engine Coolants in Glassware

METALS	SNA 4% MEG 96% Total 100% weight loss mg/specimen	SNA 5% MEG 95% Total 100% weight loss mg/specimen	ASTM D 3306 LIMITS weight loss mg/specimen
Copper	0,8	0,8	10 max
Solder	2,2	1,6	30 max
Brass	0,8	0,7	10 max
Steel	0,1	0,1	10 max
Cast Iron	0,2	0,1	10 max
Aluminium	0,6	0,4	30 max

4.2) ASTM D 4340 - Corrosion of Cast Aluminium Alloys in Engine Coolants Under Heat Rejecting Conditions

METALS	SNA 4% MEG 96% Total 100% weight loss mg/cm ² /week	SNA 5% MEG 95% Total 100% weight loss mg/cm ² /week	ASTM D 3306 LIMITS weight loss mg/cm ² /week
Aluminium	0,6	0,4	1,0 max

4.3) ASTM D 2570 – Simulated Service Corrosion Testing of Engine Coolants

METALS	SNA 4% MEG 96% Total 100% weight loss mg/specimen	SNA 5% MEG 95% Total 100% weight loss mg/specimen	ASTM D 3306 LIMITS weight loss mg/specimen
Copper	1,1	0,9	20 max
Solder	4,2	2,6	60 max
Brass	1,0	0,8	20 max
Steel	0,3	0,2	20 max
Cast Iron	1,6	0,3	20 max
Aluminium	2,2	1,8	60 max

4.4) ASTM D 2809 - Cavitation Corrosion and Erosion Characteristics of Aluminium Pumps With Engine Coolants

METALS	SNA 4% MEG 96% Total 100% Visual rating	SNA 5% MEG 95% Total 100% Visual rating	ASTM D 3306 LIMITS Visual rating
Aluminium	9	10	8 min.

5) Standards and Specifications Met By INHIBITOR SNA (Partial List)

5.1) National, International and Military Standards Met by the Antifreeze Manufactured with INHIBITOR SNA

BS 6580 (GB)	FVV Heft R 443 (D)	Afnor R 15601 (F)*	ASTM D 3306 and 4985
SAE J 1034	JIS K 2234 (J)	KSM 2142 (K)	NATO S 759
CUNA NC 956-16 (I)	UNE 26361-88 (E)	EMPA (CH)	E/L 1415c (MIL Italy)

+EXCEPT PH

5.2) OEM Specifications Met by the Antifreeze Manufactured with INHIBITOR SNA:

Porsche/VW/Audi/Seat/Skoda	TL 774 C	Volvo (Reg. N° 260)	GM US 6277 M
Mercedes DBL 7700		Ford WSS-M97B44-C	Ford ESD M97 B49-A
MAN 324		Chrysler MS 9176	Opel GM QL 130100
GM US 6277 M		BMW N 600 69.0	FIAT

6) Customization of the product

INHIBITOR SNA can be customized on request, to manufacture antifreeze meeting special standards or specifications.

INHIBITOR SNA can also be customized to meet the characteristics of antifreeze samples eventually submitted by our customers.

The informations and recommendations contained in this brochure are based upon data collected by our laboratory, believed to be correct and largely tested during many years of activity as a market leader. However, no warranty or fitness for use or any other guarantees or warranty of any kind, expressed or implied, is made to the information contained herein.



AB 114 Flow Improver for Automotive Lubricants

AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB 114 Flow Improver for Automotive Lubricants

DESCRIPTION:

AB 114 is a pour point depressant to provide the most cost-effective solution to keep your automotive lubricants flowing in the cold. It provides the versatility you need to effectively treat the wide range of new generation base stocks available in the market today and thus permits product rationalization. It is highly recommended for use in a wide variety of engine oils, gear oils, hydraulic and transmission fluids.

TYPICAL PHYSICAL PROPERTIES:

1 Form	: Organic Viscous Liquid
2 Colour	: Yellow to Amber
3 Specific Gravity @ 25° C	: 0.86 - 0.90
4 Flash Point	: >120° C
5 Viscosity @ 100° C	: >100 cst

TYPICAL DOSAGES IN FINISH LUBRICANTS

Depending on the degree of depression desired, the typical dosages would range as follows :

1 Engine Oils	: 0.1 - 0.5 % w/w
2 Gear Oils	: 0.2 - 1.5 % w/w

PERFORMANCE CHARACTERISTICS

POUR POINT DEPRESSION

AB 114 has been evaluated (as per ASTM-D97) on various international sources of light and heavy base stocks. The average effect of increasing treat rates is tabulated in the table given below :

AB 114 Dose (%)	Pour Point of base stocks, °C			
	Core 100 Group I	Core 600 Group I	Cheveron 100R Group II	Flint Hill-230 HC Group II
0.00	-21	-06	-12	-15
0.10	-21	-12	-27	-30
0.25	-27	-18	-30	-30
0.50	-30	-21	-33	-33
1.00	-30	-24	-36	-36

AB 122



viscous Solution

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 122

Viscous Solution Of Alkyl Methacrylate Polymer In Neutral Oils

DESCRIPTION:

AB 122 is a viscous Solution of Alkyl Methacrylate Polymer in Neutral Oils recommended for use as a Pour Point Depressant for Lubricating Base Oils. In finished Lubricants they are compatible with other commonly used additive. AB 122 is used for Pour depressing Industrial and gear lubricants, Mono grade and Multi-grade crankcase oils. In addition to reducing the Pour Point, AB 122 is particularly effective in controlling low temperature viscosity under shear conditions.

SPECIFICATIONS:

1. APPEARANCE	Clear Viscous Liquid
2. COLOUR	Pale Yellow to Amber
3. VISCOSITY@100 C (ASTM D445)	200-500 CST
4. DENSITY@25C (ASTM D4052)	0.90 Typ.
5. FLASH POINT (COC) C (ASTM D3278)	150 min

Recommended Dosage 0.1-0.5% for Group I and Group II oils.

Maximum Blending temp is about 90 C.

The product should be stored under the shade. Max outside temp about 40 C.

Product will be stable for at least 1 year if stored and handled properly.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

AB 604



ZDDP For Engine Oil

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 604

ZDDP For Engine Oil

AB 604 is a ZDDP for engine oil, greases and hydraulic oils. It is used to impart oxidation stability as well as antiwear properties.

SPECIFICATIONS:

1. APPEARANCE	Clear to Slight Hazy Liquid
2. COLOUR	Pale Yellow to Amber
3. FLASH POINT (COC) C	150 min
4. %Zn	8-10% Typical
5. %P	7-9% Typical
6. %S	14-17%

Recommended dosage is 0.1-2 wt% in formulation depending on base oil, other additives and properties desired.

Maximum Blending temp is about 90 C.

The product should be stored under the shade. Max outside temp about 40 C.

Product will be stable for at least 1 year if stored and handled properly.

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AB 605

ZDDP For Engine Oil



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB 605
ZDDP For Engine Oil

AB 605 is a ZDDP for engine oil, greases and hydraulic oils. It is used to impart oxidation stability as well as antiwear properties.

SPECIFICATIONS:

1. APPEARANCE	Clear to Slight Hazy Liquid
2. COLOUR	Pale Yellow to Amber
3. FLASH POINT (COC) C (ASTM D92)	150 min
4. %Zn (By AAS)	7.6-8.3%
5. %P	7.2-7.8% Typical
6. VISCOSITY @ 40 C (ASTM D445)	150-250 CST
7. COPPER CORROSION 1% in SN150 Group 2 for 3hrs/160 C	1a-1b

AAS – Atomic Absorption Spectra

Sulphur weight% will be about 16% Typical.

Recommended dosage is 1-00 wt% in formulation depending on base oil, other additives and properties desired.

Maximum Blending temp is about 60 C.

The product should be stored under the shade. Max outside temp about 40 C.

Product will be stable for at least 1 year if stored and handled properly.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

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AB 606

ZDDP For Engine Oil And Grease

Applications

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...



AB 606

ZDDP For Engine Oil And Grease Applications

AB 606 is a ZDDP for engine oil and grease applications. It is used to impart oxidation stability as well as antiwear properties.

SPECIFICATIONS:

1. APPEARANCE	Clear to Slight Hazy Liquid
2. COLOUR	Pale Yellow to Amber
3. FLASH POINT (COC) C (ASTM D92)	100 min
4. %P (By AAS)	9.3-10
5. %Zn (By AAS)	10-11.2
6. COPPER CORROSION 1% in SN150 Group 2 for 3hrs/160 C	1a-1b

AAS – Atomic Absorption Spectra

Sulphur weight% will be about 19-21%.

Recommended dosage is 1-100 wt% in formulation depending on base oil, other additives and properties desired.

Maximum Blending temp is about 60 C.

The product should be stored under the shade. Max outside temp about 40 C.

Product will be stable for at least 1 year if stored and handled properly.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

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AB 680



Vi Improver For Hydraulic Fluids

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 680

Vi Improver For Hydraulic Fluids

AB 680 is an alkyl methacrylate type polymer, specially designed for uses as Viscosity Index Improver, in formulation of High Viscosity Index Hydraulic Fluids, Gear Oils. Due to the very good shear stable Index in Bosch injector pump and good Pour Point properties it is specially recommended for shear stable hydraulic oils which are used in the wide range of temperatures.

Its excellent shear stability good cold properties and low Brookfield Viscosities make AB 680 suitable for formulating multi grade gear and engine oils.

AB 680 has been optimized to impart properties like pour point, demulsibility and hydraulic stability.

SPECIFICATIONS:

1. APPEARANCE	Clear Viscous Liquid
2. COLOUR	Pale Yellow to Amber
3. VISCOSITY@100 C (ASTM D445)	900-1500 CST
4. DENSITY@25C (ASTM D4052)	0.92 Typical (0.90-0.94 range)
5. FLASH POINT (COC) C (ASTM D92)	150 min
6. SSI 30/250 cycles (ASTM 6278)	5/12

Recommended dosage is 1-10 wt% in formulation depending on base oil, other additives and properties desired.

Maximum Blending temp is about 90 C.

The product should be stored under the shade. Max outside temp about 40 C.

Product will be stable for at least 2 yrs if stored and handled properly.

Approx Dosages for Group1 SN150/SN500 for Various Grades:

Vis Index	VG32	VG46	VG68
150	3.5-4%	4-5%	5.5-6.5%
170	5-5.5%	6-7%	8-9%

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AB 681



Vi Improver For Hydraulic Fluids

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 681

Vi Improver For Hydraulic Fluids

AB 681 is an alkyl methacrylate type polymer, specially designed for uses as Viscosity Index Improver, in formulation of High Viscosity Index Hydraulic Fluids. Due to the very good shear stable Index in Bosch injector pump and good Pour Point properties it is specially recommended for shear stable hydraulic oils which are used in the wide range of temperatures.

Its good shear stability good cold properties and low Brookfield Viscosities make AB 681 suitable for formulating hydraulic oils. AB 681 has been optimized to impart properties like pour point, demulsibility and hydraulic stability.

SPECIFICATIONS:

1. APPEARANCE	Clear Viscous Liquid
2. COLOUR	Pale Yellow to Amber
3. VISCOSITY@100 C (ASTM D445)	1400-1900 CST
4. DENSITY@25C (ASTM D4052) 0.91Typical	(0.9-0.94 range)
5. FLASH POINT (COC) C (ASTM D92)	150 min
6. SSI 30/250 cycles (ASTM 6278)	15/30

Recommended dosage is 1-8 wt% in formulation depending on base oil, other additives and properties desired.

Maximum Blending temp is about 90 C.

The product should be stored under the shade. Max outside temp about 40 C.

Product will be stable for at least 1 year if stored and handled properly.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

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AB 682



Dispersant Alkyl Methacrylate Type

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 682

Dispersant Alkyl Methacrylate Type Polymer

AB 682 is a dispersant alkyl methacrylate type polymer, specially designed for uses as Viscosity Index Improver, in formulation of High Viscosity Index Multi grade oils. It provides soot control and excellent low and high temperature properties.

SPECIFICATIONS:

1. APPEARANCE	Clear to Slight Hazy Viscous Liquid
2. COLOUR	Pale Yellow to Amber
3. VISCOSITY@100 C (ASTM D445)	1700-2400 CST
4. DENSITY@25C (ASTM D4052)	0.91 Typical (0.89-0.94 range)
5. FLASH POINT (COC) C (ASTM D92)	150 min
6. SSI 30 cycles (ASTM D6278)	50

Maximum Blending temp is about 90 C.

The product should be stored under the shade. Max outside temp about 40 C.

Product will be stable for at least 1 year if stored and handled properly.

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AB 9000



nonylated Aminic Antioxidant

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 9000

Nonylated Aminic Antioxidant

DESCRIPTION:

AB 9000 is a nonylated Aminic Antioxidant. It helps prevent oxidation of base oils thus maintaining the viscosity and extending the life of the lubricant.

SPECIFICATIONS:

No.	PARAMETERS	SPECIFICATIONS
1.	APPEARANCE @ 40C	Clear Liquid
2.	COLOUR	Yellow To Brown
3.	FLASH POINT (COC) C (ASTM D92)	150 Min
4.	VISCOSITY @ 40 C (CST) (ASTM D445)	425-900
5.	Sp. Gravity @ 30 C (ASTM D4052)	0.94-0.965

Recommended dosage is 0.1-0.5 wt% in formulation depending on base oil, other additives and properties desired. Maximum Blending temp is about 90 C. The product should be stored under the shade. Max outside temp about 40 C. Product will be stable for at least 1 year if stored and handled properly.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

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AB 9013



Polymeric Demulsifier/Defoamer

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 9013

Polymeric Demulsifier/Defoamer

AB 9013 is a polymeric Demulsifier/Defoamer. It is 100% active and non-toxic. Product is oil soluble and works well as Demulsifier and in Defoaming applications. It works well for Hydraulic Fluids, Coatings and other applications.

SPECIFICATIONS:

1. APPEARANCE@30C	Clear Liquid
2. COLOUR	Colorless to Yellow
3. CLOUD POINT 10% in Water	9-14 C
4. 2% PH in D/WATER	6 to 8
5. MOISTURE %	<1
6. SOLUBILITY IN WATER	Insoluble

The product should be stored in cool shade away from heat source. The product will be stable for 1 yr.

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AB 9021



Silicon Based Oil Soluble Defoamer

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 9021

Silicon Based Oil Soluble Defoamer

AB 9021 is a silicon based oil soluble defoamer used in many applications from textiles, leather, and lubricants to many other industries. The product is effective over a wide range of pH and temperatures and is compatible with other additives.

SPECIFICATIONS:

1. APPEARANCE@30C	Turbid Liquid
2. COLOUR	Colorless to Yellow
3. MOISTURE%	<1
4. 2% PH in D/WATER	5 to 8
5. SOLUB. IN WATER	Insoluble

The product should be stored in cool shade away from heat source. The product will be stable for 1 yr.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

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AB 9022



Acrylic Based Oil Soluble Defoamer

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 9022

Acrylic Based Oil Soluble Defoamer

AB 9022 is an acrylic based oil soluble defoamer used in many applications from textiles, leather, and lubricants to many other industries. The product is effective over a wide range of pH and temperatures and is compatible with other additives.

SPECIFICATIONS:

1. APPEARANCE@30C	Clear Liquid
2. COLOUR	Yellow to Amber
3. MOISTURE%	<1
4. 2% PH in D/WATER	5 to 8
5. SOLUB. IN WATER	Insoluble

Dosage recommended is 0.01-1% depending on the application.

The product should be stored in cool shade away from heat source. The product will be stable for 1 yr.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

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AB 9023

knitting oil emulsifier



AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 9023

Knitting Oil Emulsifier

AB 9023 is a knitting oil emulsifier made of esters, non-ionic surfactants and carboxylic acids. It provides good antistatic properties and improves fiber/fiber cohesion.

It is designed to give EP property, corrosion properties as well as excellent emulsification properties and scouring properties.

SPECIFICATIONS:

1. APPEARANCE	Clear Liquid
2. COLOUR	Yellow to Amber
3. VISCOSITY @ 40 C (CST)	20-40
4. 2% PH in D/Water	6.5-9.5
5. SOLUBILITY IN WATER	Gives Emulsion

Recommended dosage is 8-10% depending on the End customers requirement. Maximum blending temperature is about 70 C. Product will be stable for at least 1 year if stored properly.

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AB 9024

knitting oil emulsifier



AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 9024

Knitting Oil Emulsifier

AB 9024 is a coning oil emulsifier used in many textile applications. It contains detergent, dispersant, antistatic, antifungal additives in it. It is a blend based on vegetable oil ethoxylates and alkyl phenol ethoxylates. It gives excellent emulsification properties.

SPECIFICATIONS:

1. APPEARANCE	Clear Viscous Liquid
2. COLOUR	Yellow to Amber
3. ACID VALUE	10-20
4. 2% PH in D/Water	6-8
5. MOISTURE	<8% Max
6. SOLUBILITY IN WATER	Gives Emulsion
7. SP. Gr @ 30 C	0.96-0.98

Recommended dosage is 9-12%. Maximum blending temperature is about 55 C.
Product will be stable for at least 1 year if stored properly.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

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AB 9025

Butylated, Octylated Diphenylamine



AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 9025

Butylated, Octylated Diphenylamine

DESCRIPTION:

Liquid grade of mixed alkylated diphenyl amine, having mainly octylated & butylated diphenyl amine.

SPECIFICATIONS:

Appearance	: Clear Viscous Liquid
Colour	: Yellow to Reddish brown
O Viscosity @ 40°C,	: 300 - 500cST
O Specific Gravity @ 25°C	: 0.95 - 0.98
Moisture Content	: 0.1 % Max

TYPICAL PROPERTIESP:

Nitrogen Content	: 4.2 - 5.3 %
Flash Point	O : > 170 C
Solubility	
Ester	: > 5%
Mineral Oil	: > 5%

Note: Lubricants formulated with AB 9025 may discolor in use.

This has no negative effect on the lubricant characteristics and performance.

APPLICATION:

General purpose ashless antioxidant for high temperature applications in engine oils, compressor oils, industrial oils, transmission fluids, turbine oils, hydraulic fluids, greases. Its high nitrogen content & liquid form allows for its incorporation in the above mentioned lubricants.

AB 9026

Bis(Nonylphenyl)Amine



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB 9026

Bis(nonylphenyl)amine

INTRODUCTION:

When lubricants are exposed to heat, gases, or mechanical stress, the molecules can breakdown and form radicals, which react with oxygen to cause thickening, deposits and acid build up. Antioxidants extend the useful life of lubricants by eliminating these radicals and preventing thermo-oxidative break down.

DESCRIPTION:

AB 9026 is used as an antioxidant for mineral and synthetic base stocks that are typically employed in lubricant applications.

SPECIFICATIONS:

Appearance	: Clear yellow to brown viscous liquid
0 Specific gravity@25 C	: 0.92 - 0.97
0 Kinematic Viscosity@100 C,cSt	: 15 - 20
0 Refractive Index@20 C	: 1.5400 - 1.5600
Nitrogen,wt %	: 3 – 4

TYPICAL PROPERTIESP:

Flash Point COC, C	: 190
0 Melting/Freezing Point C,Tg	: - 43
0 Boiling Point, C	: >300
0 Auto Ignition Temperature, C	: 440

Note: *Specifications are subject to change without prior intimation.

APPLICATION:

AB 9026 is used as an antioxidant for high performance transportation and industrial lubricants. It may be used in combination with other antioxidants such as alkylated diphenyl amine, phenyl alpha-naphthylamine and/or other hindered phenolics.

AB 9027

Antioxidant for Greases and Lubricating



AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 9027

Antioxidant for Greases and Lubricating Oils

SPECIFICATIONS:

Fields of application	: Antioxidant for Greases and Lubricating Oil Formulations.
Highlights	: Product is ash-less, less volatile and non-corrosive.
Appearance	: Clear Liquid
Colour (APHA)	: 100 max.
Acid No. (mg KOH / gm)	: 0.50 max.
Specific Gravity (25 °C/ 15.5 °C)	: 0.980 - 0.992
Density (gm / ml)	: 0.98
O O Flash Point	: 196 C (385 F) (Pensky-Martens Closed Cup)
Solubility	: Soluble in most common aprotic organic solvents; insoluble in water.

APPLICATION:

Lubricating oils and greases under oxidizing conditions yield unstable materials called peroxides which quickly decompose to form other materials which are even more susceptible to oxidation. This process is like a chain reaction which is accelerated by increased temperatures and further catalyzed by metals present in the formulations.

AB 9027 is therefore highly recommended to terminate this free radical chain reaction and prevent oxidation degradation resulting under oxidizing conditions without affecting EP and other corrosion properties of the formulations.

DOSAGES

Formulations	Recommended Dosage	Oxidative stability	Test method
Grease (Lithium based)	0.20-0.30 % w/w	0.15 kg/cm ²	ASTM-D 942
Transformer Oils / Insulating Oils	100 - 250 ppm	<0.4 mg KOH / g	IS-335
Industrial Lubricants	0.20-0.30 % w/w	100 minutes (Min)	ASTM-D 2272

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AB 9028



Tri Phenyl Phosphite

AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

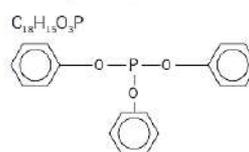
AB 9028 **Tri Phenyl Phosphite**

PRODUCT INFORMATION

Chemical Name
Molecular Formula

: Tri Phenyl Phosphite
: C₁₈ H₁₅ O₃ P

Structural Representation :



CAS Number

: 101 - 02 - 0

SPECIFICATIONS:

Appearance
Colour (APHA)
Acid No. (mg KOH / gm)
Specific Gravity (@ 25°C)
Refractive Index (@ 25°C)

: Clear Liquid
: 50 Max.
: 0.5 Max.
: 1.180 - 1.190
: 1.5800 - 1.5980

TYPICAL PROPERTIES

Phosphorous Content (%)
Density (gm / cm³) (@ 25°C)
Flash Point (COC)
Viscosity [cps @ 38°C (100°F)]
Solubility
Phenol Content (%)

: 10.0
: 1.18
: 188 C
: 12.0
: Soluble in most common aromatic and insoluble in water.
: 1 Max.

AB 9029



Trilauryl Phosphite

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

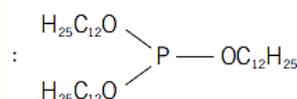
AB 9029

Trilauryl Phosphite

PRODUCT INFORMATION

Chemical Name : Trilauryl Phosphite
Molecular Formula : C₃₆ H₇₅ O₃ P

Structural Representation :



Formula Weight : 586
Chemical Abstract Number : 3076-63-9

TYPICAL SPECIFICATIONS:

Appearance (@ 60°C) : Clear Liquid •
Colour (APHA) : 50 Max.
Acid No. [mg KOH / gm] : 0.10 Max
Refractive Index (@ 25 °C) : 1.4545-1.4595
Specific Gravity (@ 25°C) : 0.872-0.882

TYPICAL PROPERTIES

Viscosity [cps @ 100 F (38 C)] : 16.0
Phosphorous Content (%) : 5.3
Density : 7.3
(g/ml @ 25 C) : 0.88
Vapor Pressure @ 5 mm Hg : 374 F (190° C)
Flash Point : 450 °F (232 °C)
(Pensky-Martens Closed Cup)
Solubility : Soluble in most common aprotic organic solvents, insoluble in water

APPLICATIONS

AB 9029 phosphite is a trialkyl phosphite which can be used as a lubricant additive to improve antifriction and antiwear characteristics. It also functions as a sulfur deactivator. AB 9029 may be used as a stabilizer in PVC, polyester fibers and in polypropylene when regulatory approval for food contact is not required.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

AB 123

viscous Solution



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB 123

Viscous Solution Of Alkyl Methacrylate Polymer In Neutral Oils

DESCRIPTION:

AB 123 is a viscous Solution of Alkyl Methacrylate Polymer in Neutral Oils recommended for use as a Pour Point Depressant for Lubricating Base Oils. In finished Lubricants they are compatible with other commonly used additive.

AB 123 is used for Pour depressing Industrial and gear lubricants, Mono grade and Multi-grade crankcase oils. In addition to reducing the Pour Point, AB 123 is particularly effective in controlling low temperature viscosity under shear conditions.

SPECIFICATIONS:

1. APPEARANCE	Clear Viscous Liquid
2. COLOUR	Pale Yellow to Amber
3. VISCOSITY@100 C(ASTM D445)	300-900 CST
4. DENSITY@25 C (ASTM D4052)	0.90 Typ. (0.88-0.94 range)
5. FLASH POINT (COC) C (ASTM D3278)	150 min

Recommended Dosage 0.1-0.5% for Group II and Group III oils.

Maximum Blending temp is about 90 C.

The product should be stored under the shade. Max outside temp about 40 C.

Product will be stable for at least 1 year if stored and handled properly.

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AB 124

viscous Solution



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB 124

Viscous Solution Of Alkyl Methacrylate Polymer In Neutral Oils

DESCRIPTION:

AB 124 is a viscous Solution of Alkyl Methacrylate Polymer in Neutral Oils recommended for use as a Pour Point Depressant for Lubricating Base Oils. AB 124 is completely soluble in all Petroleum Oils at any temperature and concentration. In finished Lubricants they are compatible with other commonly used additive.

AB 124 is used for Pour depressing Industrial and gear lubricants, Mono grade and Multi-grade crankcase oils. In addition to reducing the Pour Point, AB 124 is particularly effective in controlling low temperature viscosity under sheer conditions.

SPECIFICATIONS:

1. APPEARANCE	Clear Viscous Liquid
2. COLOUR	Pale Yellow to Amber
3. VISCOSITY@100 C (ASTM D445)	200-600 CST
4. DENSITY@25C (ASTM D4052)	0.90 Typ. (0.88-0.94 range)
5. FLASH POINT (COC) C (ASTM D3278)	150 min

Recommended Dosage 0.1-0.5% for Group I and Group II oils.

Maximum Blending temp is about 90 C.

The product should be stored under the shade. Max outside temp about 40 C.

Product will be stable for at least 1 year if stored and handled properly.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

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AB 8000



octylated/butylated Aminic

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 8000

octylated/butylated Aminic Antioxidant

DESCRIPTION:

AB 8000 is an octylated/butylated Aminic Antioxidant. It helps prevent oxidation of base oils thus maintaining the viscosity and extending the life of the lubricant.

SPECIFICATIONS:

No.	PARAMETERS	SPECIFICATIONS
1.	APPEARANCE @ 40C	Clear Liquid
2.	COLOUR	Pale Yellow to Reddish Brown
3.	FLASH POINT (COC) C (ASTM D92)	150 min
4.	VISCOSITY @ 40 C (CST) (ASTM D445)	225-450
5.	Sp. Gravity @ 30 C (ASTM D4052)	0.96-0.98

Recommended dosage is 0.1-0.5 wt% in formulation depending on base oil, other additives and properties desired. Maximum Blending temp is about 90 C. The product should be stored under the shade. Max outside temp about 40 C. Product will be stable for at least 1 year. if stored and handled properly.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

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AB 9011

Emulsifier



AB Petrochem Pvt. Ltd.
Reliable Import Export Partner...

AB 9011 Emulsifier

DESCRIPTION:

Emulsifier for the formulation of Cutting Oils / Soluble Oils.

SPECIFICATIONS:

Colour	: Reddish Brown
Appearance	: Clear Liquid
Acid Value (Emulsifier)	: Less Than 25
Ph Of Emulsion In D.Water	: 8 To 9.5
Viscosity @ 40c	: 200-300 Cst
Ash Content	: 1.8wt% Max
Flash Point	: >99 C

PERFORMANCE TEST

(Oil : Emulsifier /82 Parts : 18 Parts)

Emulsion 5 % & 10 % In 400 Ppm Hard Water	: Stable
Frothing	: Passes
Cold Stability	: Stable
Cast Iron Corrosion	: 0 / 0-1
Cu. Strip Corrosion @ 100 °C For 3 Hrs	: 1

APPLICATION:

Recommended to be blended at 16 % to 20 % by weight in Paraffin/Naphthenic Oils. Good emulsion characteristics are obtained in hard water. Antirust protection and germicidal properties are also provided.

NOTE: The information presented here is based on our present state of knowledge. All recommendation regarding the use of our products are in an advisory capacity, buyer and users should make their assessment of our products under their own conditions and for their own requirements. Hence, this should not therefore be constructed as guaranteeing specific properties of the products.

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AB 9012



Antiwear Package For Hydraulic

AB Petrochem Pvt. Ltd.

Reliable Import Export Partner...

AB 9012

Antiwear Package For Hydraulic Fluids

DESCRIPTION:

AB 9012 is a antiwear package for Hydraulic Fluids. It contains additives for oxidation stability, corrosion protection, filterability, hydrolytic stability, antiwear protection. It can be used for many base oils with recommended starting treat rate of 0.45%.

SPECIFICATIONS:

1. APPEARANCE@30C	Clear Liquid
2. COLOUR	Yellow to Amber
3. VISCOSITY @ 40 C	140-300 CST
4. FLASH POINT	>100 C min
5. % P	5.8-6.5 wt%
6. % Zn	7.5-8 wt%

Blending Temp should be <65 C.

The product should be stored in cool shade away from heat source. The product will be stable for 1 year.