



ALTAI
METAL & CHEMICAL



PETROLEUM ADDITIVES

BASE OIL

LUBRICANTS

FLUORO PRODUCTS

ANHYDRIDES

Ashless dispersant Techwell 151(T151)

Polyisobutylene monosuccinimide ashless dispersant, with code name T151, has excellent low temperature dispersancy and high inhibiting ability of the formation of varnish. When combined with detergent ,antioxidant and corrosion inhibitors, it can be used in blending gasoline engines oil from SC to SF grade.

Specification

Items	Limits	Test Methods
Appearance	Thick clear liquid	Visual
Kinetic Viscosity, 100°C, mm ² /s	report	ASTM D445
Flash point (open up), °C	170min	ASTM D92
Density, 20°C, kg/m ³	report	ASTM D1298
Mechanical impurities, %(m/m)	0.08max	ASTM D2273
Water, %(m/m)	0.1max	ASTM D95
Color, scale(diluted)	6.0max	ASTM D1500
Nitrogen, %(m/m)	1.9min	ASTM D4951
Chlorine, %(m/m)	0.5max	ASTM D4951
TBN, mgKOH/g	40min	ASTM D2896
Dispersibility, SDT	report	Oil sludge spot dispersing test

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 T151, 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.

Ashless dispersant Techwell 154(T154)

Ashless dispersant T154 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	55min	Oil sludge spot dispersing test

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 T154, 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.

Ashless dispersant Techwell 155(T155)

Ashless dispersant T155 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, inexplusive and incorrosive.

Toxicity:

When using T155, 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.

Ashless dispersant Techwell 161A(T161A)

Ashless dispersant T161A is high molecular succinimide with excellent dispersancy and thermal stability can meet the requirement of low temperature dispersancy and thermal oxidation ability of high functional oil. It can be specially used to blend high-grade inter combustion engine oil, such as SG, SH, SJ, CF-4, etc.

Specification

Items	Limits	Test Methods
Appearance	Thick clear liquid	Visual
Kinetic Viscosity, 100°C, mm ² /s	350-450	ASTM D445
Flash point(open up), °C	180min	ASTM D92
Density, 20°C, kg/m ³	890-935	ASTM D1298
Nitrogen, %(m/m)	1.0-1.2	ASTM D4951
TBN, mgKOH/g	15-30	ASTM D2896
Dispersibility, SDT	report	Oil sludge spot dispersing test

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 T161A, 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.

Ashless dispersant Techwell 161B(T161B)

Ashless dispersant T161B is boronized high molecular succinimide with excellent dispersancy and thermal stability can meet the requirement of low temperature dispersancy and thermal oxidation ability of high functional oil. It can be specially used to blend high-grade inter combustion engine oil, such as SG, SH, SJ, CF-4, etc.

Specification

Items	Limits	Test Methods
Appearance	Thick clear liquid	Visual
Kinetic Viscosity, 100°C, mm ² /s	300-400	ASTM D445
Flash point (open up), °C	180min	ASTM D92
Density, 20°C, kg/m ³	890-935	ASTM D1298
Nitrogen, %(m/m)	1.0-1.2	ASTM D4951
TBN, mgKOH/g	15-30	ASTM D2896
Boron, %	0.35min	ASTM D4951
Dispersibility, SDT	report	Oil sludge spot dispersing test

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 T161B, 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.

Polyisobutylene succinic anhydride
PIBSA T1000A

Polyisobutylene succinic anhydride is a lubricant additive intermediate prepared from high reactive polyisobutylene(Mn=1000) by thermal addition process. The ashless dispersant produced from T1000A possesses fine detergency and favourable low temperature sludge dispersion. This product is free of chlorine

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	600.0-1000	ASTM D445
Flash point(open up), °C	180min	ASTM D92
Density, 20°C, kg/m ³	920-990	ASTM D1298
Acid number, mgKOH/g	100min	Q/JTH012 AffixA

Usage:

Used for preparation of various types of polyisobutylene succinimide
Used for preparation of emulsifying agents for emulsion explosives
Used for preparation of processing aids for petroleum chemical plant

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.

Polyisobutylene succinic anhydride PIBSA (T2300A)

Polyisobutylene succinic anhydride is a lubricant additive intermediate prepared from high reactive polyisobutylene (Mn=2300) by thermal adduction process. The ashless dispersant produced from T2300A possesses fine detergency and favourable low temperature sludge dispersion. This product is free of chlorine.

Specification

Items	Limits	Test Methods
Kinetic viscosity, 100°C, mm ² /s	1600-2200	ASTM D445
Flash point(open up), °C	200 min	ASTM D92
Density, 20°C, kg/m ³	920-990	ASTM D1298
Acid number, mgKOH/g	60 min	Q/JTH012 AffixA

Usage:

Used for preparation of various types of polyisobutylene succinimide
Used for preparation of emulsifying agents for emulsion explosives
Used for preparation of processing aids for petroleum chemical plant

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.

Detergent Techwell 104(T104)

Detergent T104 is a low base number synthetic calcium sulfonate. It has the features of distinct detergency and antirust property. The product can be used in blending various grades lubricating oil for internal combustion engines. The reference dosage in oil product should be from 0.5%-3.0%.

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	150max	ASTM D445
Calcium, %(m/m)	2.0min	ASTM D5185
Sulfur, %(m/m)	2.0min	ASTM D129
Density, 20°C, kg/m ³	Report	ASTM D1298
Flash point (open cup) °C	180min	ASTM D92
Turbidity, JTU	150max	ASTM D7315
Total base number, mgKOH/G	20-30	ASTM D2896

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 T104, 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.

Detergent Techwell 105(T105)

Detergent T105 is a medium base number synthetic calcium sulfonate. It has the excellent features of acidic neutralization capacity, high temperature detergency and antirust property. The product can be mainly used in blending medium and high grades lubricating oil for internal combustion engines such as CC, CD, SE and CF class. The reference dosage in oil product should be from 0.5%-3.0%.

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	report	ASTM D445
Calcium, %(m/m)	6.85min	ASTM D5185
Sulfur, %(m/m)	1.8-2.2	ASTM D129
Density, 20°C, kg/m ³	1005-1040	ASTM D1298
Oil soluble blot test	clean	ASTM D3712
Turbidity, JTU	20max	ASTM D7315
Clarity	clear	Visual inspection
Total base number, mgKOH/G	145min	ASTM D2896

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 T105, 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.

Detergent Techwell 106(T106)

Detergent T106 is a high base number synthetic calcium sulfonate. It has the features of excellent acidic neutralization capacity, high temperature detergency. The product can be mainly used in blending high grades lubricating oil for internal combustion engines, heavy load diesel engines, especially engines using the fuel with high sulfur content. The reference dosage in oil product should be from 1.5%-3.0%.

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	35-45	ASTM D445
Calcium, %(m/m)	11.6min	ASTM D5185
Sulfur, %(m/m)	1.10-1.20	ASTM D129
Density, 20°C, kg/m ³	1060-1140	ASTM D1298
Oil soluble blot test	clean	ASTM D3712
Color, scale(diluted)	7.0max	ASTM D1500
Turbidity, JTU	250max	ASTM D7315
Clarity	clear	Visual inspection
Total base number, mgKOH/G	300min	ASTM D2896

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 T106, 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.

Detergent

Techwell 107 (T107)

T107 Super High-based Synthetic Magnesium Sulfonate is mainly made from long-chain alkylbenzene sulfonate by means of neutralization and high-base reaction. As a major metal detergent, this product boasts excellent acid neutralization capacity, good anti-rust property and high-temperature detergency, is widely used for different ICE oils.

Specification

Item	Typical Value	Test Method
Flash Point(open cup), °C	180	ASTM D92
Kinematic Viscosity,(100 °C) mm ² /s	148	ASTM D445
Density(20 °C),kg/m ³	1113	ASTM D4052
Total Base Number, mgKOH/g	403.5	ASTM D2896
Mg Content, %(m/m)	9.0	ASTM D-4951
Water Content, %(m/m)	0.07	ASTM D-95
Mechanical Impurities, %	0.07	GB/T 511,Din51592

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 T107, 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.

Detergent Techwell 107B(T107B)

Detergent T107B is an over base number synthetic calcium sulfonate. It has the features of excellent acidic neutralization capacity, high temperature detergency. The product can be mainly used in blending high grades lubricating oil for internal combustion engines, heavy load diesel engines, especially engines using the fuel with high sulfur content. The reference dosage in oil product should be from 1.5%-3.0%.

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	150max	ASTM D445
Calcium, %(m/m)	15min	ASTM D5185
Density, 20°C, kg/m ³	1100-1250	ASTM D1298
Oil soluble blot test	clean	ASTM D3712
Color, scale(diluted)	5.0max	ASTM D1500
Turbidity, JTU	150max	ASTM D7315
Clarity	clear	Visual inspection
Total base number, mgKOH/G	395min	ASTM D2896

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 T107B, 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.

Detergent Techwell 109A(T109A)

T109A is a medium base number salicylate calcium detergent. It has the features of excellent acidic neutralization capacity, high temperature detergency. It is an eco-friendly product without sulfur.

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	200max	ASTM D445
Calcium, %(m/m)	6.0min	ASTM D5185
Sulfur, %(m/m)	trace	ASTM D129
Density, 20°C, g/cm ³	0.9-1.1	ASTM D1298
Flash point °C	170min	ASTM D92
Color, scale(diluted)	7.0max	ASTM D1500
Turbidity, JTU	150max	ASTM D7315
Total base number, mgKOH/G	160min	ASTM D2896

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 T109A, 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.

Detergent Techwell 109B(T109B)

Detergent T109B is a high base number salicylate calcium detergent. It has the features of excellent acidic neutralization capacity, high temperature detergency. It is eco-friendly product without sulfur. It is widely used in producing high grade PCMO/HDDO even marine oil.

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100 °C, mm ² /s	200max	ASTM D445
Calcium, %(m/m)	9.0min	ASTM D5185
Sulfur, %(m/m)	trace	ASTM D129
Density, 20 °C, g/cm ³	0.95-1.20	ASTM D1298
Flash point °C	170min	ASTM D92
Color, scale(diluted)	7.0max	ASTM D1500
Turbidity, JTU	20max	ASTM D7315
Total base number, mgKOH/G	265min	ASTM D2896

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 T109B, 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.

Detergent Techwell 115(T115)

Detergent T115 is sulfurized calcium alkylphenate. It has the features of excellent high temperature detergency, fine acid neutralizing ability, better anti-oxidant ability and antirust performance, water resistance as well. The product can be mainly used in blending high quality internal combustion engine oil and marine cylinder oils. The reference dosage in oil product should be from 0.5%-4.0%.

Specification

Items	T115A	T115B	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	200max	300max	ASTM D445
Calcium, %(m/m)	5.0min	9.0min	ASTM D5185
Sulfur, %(m/m)	2.2-2.8	2.9-3.8	ASTM D129
Density, 20°C, kg/m ³	report	report	ASTM D1298
Total base number, mgKOH/G	145min	245min	ASTM D2896
Water, %(m/m)	0.1max	0.1max	ASTM D95

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 T115, 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.

Oxidation-corrosion inhibitor Techwell 202(T202)

Oxidation-corrosion inhibitor T202 has the features of excellent anti-oxidation and anti-corrosion properties and certain wear resistance. The product can effectively prevent the corrosion of bearings and the viscosity growth of oil products resulted from high temperature oxidation. It can be mainly used in blending medium and high grade lubricating oil for internal combustion engines and industrial oil. The reference dosage in oil products should be from 0.5% to 3.0%.

Specification

Items	Limits	Test Methods
Density, 20 °C, kg/m ³	1080-1130	ASTM D1298
Flash point (open cup) °C	180min	ASTM D92
Sulfur, %(m/m)	14.0-18.0	ASTM D129
Phosphor, %(m/m)	7.2-8.5	ASTM D4951
Zinc, %(m/m)	8.5-10.0	ASTM D5185
PH value	5.0min	ASTM D974
Thermal decomposed temperature, °C	220min	ASTM D3850
Mechanical impurities %(m/m)	0.07max	ASTM D2273

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. For long term storage, the temperature should not exceed 50 °C.

Toxicity:

When using T202, 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.

Oxidation-corrosion inhibitor Techwell 203(T203)

Oxidation-corrosion inhibitor with code name of T203 is a multifunction lube oil additive possessing the properties of anti-oxidation, corrosion resistance, anti-wear and the excellent high temperature stability. It combines with detergent and ashless dispersant to blend high and medium load thermal lube oil for internal combustion engine and marine. The treat rate in oil is from 0.5%-3.0%.

Specification

Items	Limits	Test Methods
Density, 20°C, kg/m ³	1060-1150	ASTM D1298
Flash point(open cup)°C	180min	ASTM D92
Sulfur, %(m/m)	12.0-18.0	ASTM D129
Phosphor, %(m/m)	6.5-8.8	ASTM D4951
Zinc, %(m/m)	8.0-10.5	ASTM D5185
PH value	5.3min	ASTM D974

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. For long term storage, the temperature should not exceed 50°C.

Toxicity:

When using T203, 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.

Oxidation-corrosion inhibitor Techwell 204(T204)

Zinc dioctyl primary dialkyl dithiophosphate(T204) is an antioxidant and corrosion inhibitor which has excellent performance of antioxidation and corrosion resistance, emulsification resistance and storage stability of anti-emulsification, hydrolytic stability for anti-wear hydraulic fluid and industrial oil. The treat rate in the lubricating oil preferably should be from 0.5% to 2.5%.

Specification

Items	Limits	Test Methods
Density, 15.6°C, kg/m ³	1050-1150	ASTM D1298
Flash point (open cup) °C	100min	ASTM D92
Sulfur, %(m/m)	13.6-16.0	ASTM D129
Phosphor, %(m/m)	6.5min	ASTM D4951
Zinc, %(m/m)	7.5min	ASTM D5185
PH value	5.5min	ASTM D974
Thermal decomposed temperature, °C	200min	ASTM D3850

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. For long term storage, the temperature should not exceed 50°C.

Toxicity:

When using T204, 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.

Oxidation-corrosion inhibitor Techwell 205(T205)

Zinc propyl octyl primary-secondary dialkyl dithiophosphate(T205) has better anti-oxidant and anti-wear property in addition to the normal property of the T205. It can resolve the wear and corrosion of the cam and tappet. It can be used to blend high grade gasoline engine oil. The treat rate in the lubricating oil preferably should be from 0.5% to 2.5%.

Specification

Items	Limits	Test Methods
Density, 20 °C, kg/m ³	1080-1150	ASTM D 4052
Flash point (open cup) °C	180min	ASTM D 92
Sulfur, %(m/m)	17.5-20.5	ASTM D5185
Phosphor, %(m/m)	8.5-9.5	ASTM D5185
Zinc, %(m/m)	9.5-10.8	ASTM D5185

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. For long term storage, the temperature should not exceed 50°C.

Toxicity:

When using T205, 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.

Oxidation-corrosion inhibitor Techwell 206(T206)

Oxidation-corrosion inhibitor with code name of T206 is a multifunction lube oil additive possessing the properties of anti-oxidation, corrosion resistance, anti-wear and the excellent high temperature stability. It combines with detergent and ashless dispersant to blend high and medium load thermal lube oil for internal combustion engine and marine. The treat rate in oil is from 0.5%-3.0%.

Specification

Items	Limits	Test Methods
Density, 20°C, kg/m ³	1100-1180	ASTM D1298
Flash point(open cup)°C	150min	ASTM D92
Sulfur, %(m/m)	20.0-22.0	ASTM D129
Phosphor, %(m/m)	9.5-10.3	ASTM D4951
Zinc, %(m/m)	10.3-11.8	ASTM D5185
PH value	5.3min	ASTM D974

Package, Storage and Transportation:

The product should be packed, marked, stored, transported and accepted on delivery according to SH0164. It is nonflammable, explosive and incorrosive. For long term storage, the temperature should not exceed 50°C.

Toxicity:

When using T206, 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.

**EP antiwear additive
Techwell 301(T301)**

T301 is chlorinated paraffin extreme pressure antiwear additive which reflect excellent extreme pressure ability. The product is light yellow thick liquid possessed plasticization effect on polyvinyl chloride (PVC), but lower in stability. It is soluble in water and corrosive to metal. As an extreme pressure agent and plasticity agent, it is widely used in gear oil and metal-processing oil, etc. The reference dosage is 0.5% ~ 3.0%.

Specification

Items	Limits	Test Methods
Color(Iodine)	15max	ASTM D1500
Viscosity, 50°C, mPa.s	500max	ASTM D445
Total chlorine, %(m/m)	50-54	ASTM D4951
Density, 20°C, kg/m ³	1130-1170	ASTM D1298
Refractive Index	1500-1503	ASTM D1218
Thermal stability index (175°C, 4h, 10l/h), HCl%	0.2max	ASTM D3350

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 T301, 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.

**EP antiwear additive
Techwell 304(T304)**

T304, Dibutyl phosphite with excellent extreme pressure (EP) property and thermal stability, it can be utilized in a variety of formulations in combination with other chemical components, to prepare lubricants meeting various performance requirements for different grade automotive gear oil.

Specification

Items	Limits	Test Methods
Appearance	Colorless transparent liquid	Visual
Phosphor, %(m/m)	14.5-16	ASTM D4951
Ester, %(m/m)	9.5min	GB/T 6489
Acid value, mgKOH/g	10max	ASTM D974
Cu-strip corrosion(121°C, 3h)	0-1	ASTM D130

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 T304, 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.

EP antiwear additive Techwell 305(T305)

T305 includes P, S and N with excellent properties of extreme pressure (EP), antiwear, and oil solubility. Mainly be used for medium and heavy load vehicle gear oil and medium and heavy load industry gear oil. Reference dosage is 0.3-1.0%.

Specification

Items	Limits	Test Methods
Appearance	yellowish liquid	Visual
Flash point (open cup), °C, min	110min	ASTM D92
Phosphor, %(m/m)	5.5min	ASTM D4951
Sulfur, %(m/m)	10.0min	ASTM D129
Nitrogen, %(m/m)	1.0min	ASTM D4951
Water, %(m/m)	0.10max	ASTM D95
Mechanical impurities, % (m/m)	0.10max	ASTM D2273
Cu-strip corrosion (121°C, 3h)	2b	ASTM D130

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 T305, 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.

EP antiwear additive Techwell 306(T306)

T306 is tricresyl phosphate in transparent oily liquid with excellent properties of combustion inhibition, antiwear, mildew inhibition, solvent resistance as well as low volatility. It is used as antiwear agent of hydraulic oil and other oils, also the component of combustion inhibition hydraulic oil. The reference dosage is 0.5%~3.0%.

Specification

Items	Limits	Test Methods
Color(Pt-Co)	100max	ASTM D1500
Flash point (open cup), °C, min	225min	ASTM D92
Density (20°C), kg/m ³	1185max	ASTM D1298
Acid value, mgKOH/g	0.1max	ASTM D974
Free cresol, %(m/m)	0.1max	Enterprise standard
Reduction after heating	0.1max	Enterprise standard

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 T306, 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.

EP antiwear additive Techwell 307(T307)

T307 is thiophosphoric acid amine salt with excellent properties of extreme pressure (EP), antiwear, and oil solubility. Mainly be used for medium and heavy load vehicle gear oil and medium and heavy load industry gear oil. The reference dosage is 0.5-3.0%.

Specification

Items	Limits	Test Methods
Appearance	Orange oily liquid	Visual
Flash point(open cup), °C, min	115min	ASTM D92
Phosphor, %(m/m)	8.5min	ASTM D4951
Sulfur, %(m/m)	10.0min	ASTM D129
Nitrogen, %(m/m)	1.4min	ASTM D4951
Water, %(m/m)	0.15max	ASTM D95
Mechanical impurities, % (m/m)	0.05max	ASTM D2273
Cu-strip corrosion (121°C, 3h)	2b	ASTM D130

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 T307, 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.

**EP antiwear additive
Techwell 308(T308)**

It's a multieffective- additive of the combination of Phosphor and Nitrogen with multiple function in antiwear, antirust and antioxidation. Moreover, with good oil solvent property and strong compatibility, this product can be used in application of gear oil, hydraulic oil and other industrial oil. The reference dosage is 0.5%-1.0%.

Specification

Items	Limits	Test Methods
Appearance	Milky dope	Visual
Phosphor, %(m/m)	5.2-6.4	ASTM D4951
Nitrogen, %(m/m)	2.0-3.0	ASTM D4951
Cu-strip corrosion(121°C, 3h)	1	ASTM D130

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 T308, 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.

**EP antiwear additive
Techwell 309(T309)**

T309, Sulfurized tribenzyl phosphate with excellent properties of extreme pressure (EP), antiwear, thermal stability and color stability, can be utilized in a variety of formulations in combination with others to prepare lubricants meeting various performance requirements for gear oil, metal working oil. The reference dosage is 0.4-2.0%.

Specification

Items	Limits	Test Methods
Appearance	White or yellowish powder	Visual
Melting point, °C	51-54	ASTM D127
Phosphor, %(m/m)	8.9min	ASTM D4951
Sulfur, %(m/m)	9.3min	ASTM D129
Cu-strip corrosion (121°C, 3h)	1	ASTM D130

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 T309, 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.

EP antiwear additive Techwell 321A(T321A)

T321A, New type Sulfurized isobutylene without chlorine using new technology, with high sulfur content have unique solubility in mineral oils, excellent extreme pressure (EP) property and thermal stability, can be utilized in a variety of formulations in combination with other chemical components, to prepare lubricants meeting various performance requirements for gear oil, metal working oil, grease and anti-wear hydraulic oil. The reference dosage is 1.0-10%.

Specification

Items	Limits	Test Methods
Appearance	orange liquid	Visual
Kinetic Viscosity, 40°C, mm ² /s	2.0-5.0	ASTM D445
Flash point(open up), °C	90min	ASTM D92
Density, 20°C, kg/m ³	950-1150	ASTM D1298
Mechanical impurities, % (m/m)	0.05max	ASTM D4951
Water, %(m/m)	trace	ASTM D95
Sulfur, %(m/m)	40.0-46.0	ASTM D129
Chlorine, %(m/m)	non	ASTM D4951
Cu-strip corrosion(121°C,3h)	3max	ASTM D130
4 ball test, PD,N	4900 min	ASTM D2783

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 T321A, 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.

Extreme Pressure additive for MWF Techwell 321B(T321B)

T321B, New type Sulfurized isobutylene without chlorine using new technology, with high sulfur content have unique solubility in mineral oils, excellent extreme pressure (EP) property and thermal stability, can be utilized in neat oil and semisynthetic metal working fluids for cutting applications. It has synergistic effects to boost antiwear properties when combining with ZDDP, the reference dosage is 1.0-10%.

Specification

Items	Limits	Test Methods
Appearance	orange liquid	Visual
Kinetic Viscosity, 100°C, mm ² /s	3.0-5.0	ASTM D445
Flash point(open up), °C	90min	ASTM D92
Density, 20°C, kg/m ³	950-1050	ASTM D1298
Mechanical impurities, % (m/m)	0.05max	ASTM D4951
Water, %(m/m)	trace	ASTM D95
Sulfur, %(m/m)	45-50	ASTM D4951
Chlorine, %(m/m)	non	ASTM D4951

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 T321B, 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.

Catalyst for pre-sulfuration Techwell 321C(T321C)

T321B, New type Sulfurized isobutylene without chlorine using new technology, with high sulfur content widely used as olefin catalyst in petroleum refining industry. As excellent catalyst used in pre-sulfuration bear low toxicity and wide decomposition temperature range. Pre-sulfuration out of reactor could shorten cure time and homogenize catalyst sulfuration, even improve its hydrogenation activity, stability and selectivity to help catalyst could be used effectively at utmost.

Specification

Items	Limits	Test Methods
Appearance	yellowish liquid	Visual
Kinetic Viscosity, 100°C, mm ² /s	3.0-5.0	ASTM D445
Flash point(open up), °C	90min	ASTM D92
Density, 20°C, kg/m ³	950-1100	ASTM D1298
Mechanical impurities, % (m/m)	0.05max	ASTM D4951
Water, %(m/m)	trace	ASTM D95
Sulfur, %(m/m)	50-60	ASTM D4951
Chlorine, %(m/m)	non	ASTM D4951

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 T321C, 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.

**EP antiwear additive
Techwell 323(T323)**

The product is a kind of multiple effective ashless EP antiwear additive having prominent anti-wear and anti-extreme pressure, excellent performance of non corrosion of the anti-oxidant effect. It also have fine compatibility, which can be used in turbine oil, hydraulic oil, gear oil, engine oil and so on.

Specification:

Items	Limits	Test Methods
Appearance	Reddish brown liquid	Visual
Density, 20°C, kg/m ³	950-1150	ASTM D1298
Kinetic Viscosity, 100°C, mm ² /s	13.5-16.5	ASTM D445
Sulfur, %(m/m)	29-32	ASTM D129
Flash point(open up), °C	130min	ASTM D92

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 T323, 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.

Oiliness additive Techwell 405(T405)

Sulfurized olefin cotton oil with code T405 has excellent extreme pressure anti-wear ability and oil solubility. It can be used for blending guideway oil, hydraulic guideway oil, industry gear oil and metal processing oil, etc. Reference dosage: guide-way oil 3~6%, hydraulic guideway oil 0.5~1.5%, industry gear oil about 2.5%, lubricating grease 2%~5%.

Specification

Items	Limits	Test Methods
Appearance	Brown transparent liquid	Visual
Kinetic Viscosity, 100°C, mm ² /s	20-28	ASTM D445
Flash Point (open cup), °C	140min	ASTM D92
Sulfur, %(m/m)	7.5-8.5	ASTM D129
Water, %(m/m)	0.05max	ASTM D95
Mechanical Impurities, %(m/m)	0.07max	ASTM D2273
Cu-strip corrosion (100°C, 3h)	1max	ASTM D130
Four ball machine test, PB,N	697max	ASTM D2783
Anti-scrape, OK value, N	111max	SH/T0532

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 T405, 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.

Antioxidant Techwell 501(T501)

T501, 2,6-ditertiary butyl para-cresol, is phenolic anti-oxidant agent reflecting excellent anti-oxidation property and offering the best anti-oxidation effect if working temperature of 100 . It can be widely used in the lubricating oil for industrial applications. It can also be added into petrochemical products directly such as rubber and plastics for improving the ability of resistance to oxidation and extension of service period. Compounded with ZDDP and TCP, it can be used to blend antiwear hydraulic oil. The normal dosage is 0.1% ~1.0%.

Specification

Items	Limits	Test Methods
Appearance	White crystalline solid	Visual
Initial melting point °C	69.0-70.0	ASTM D127
Flash Point(open cup), °C	report	ASTM D92
Ash, %(m/m)	0.01max	ASTM D482
Water, %(m/m)	0.05max	ASTM D95
Dissociative cresol, %(m/m)	0.015max	\

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 T501, 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.

Antioxidant Techwell 534(T534)

T534 is alkylated diphenyl amine based anti-oxidant agent which has the feature of excellent anti-oxidation property It can be used as anti-oxidation additive for fuel oil and lubricating oil. It can be used alone or compounded with others. Dosage in SH,CF-4,CG4 is 0.3-1.0%, in HL,TRANSFER OIL, GREASE is 0.5-0.1%.

Specification

Items	Limits	Test Methods
Apperance	Light brown liquid	visual
Viscosity, 40°C, mm ² /s	7.9-10.0	ASTM D445
Flash Point(open cup), °C	170min	ASTM D93
Density(20°C), kg/m ³	0.9-1.0	ASTM D1298
Mechanical impurity,%	0.05	ASTM D2273
Nitrogen, %(m/m)	4.3-5.0	ASTM D4951
TBN,mgKOH/g	170min	ASTM D2896

Compare for different antioxidant performance

Oil grade	DOSAGE,%(W/W)	RBOT,min
HVIS 150	—	25
HVIS 150 +T534	0.5	105
HVIS 150 + L57	0.5	104
HVIS 150 + V-81	0.5	77
HVIS 150 +LZ5150A	0.5	64

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 T534,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.

Metaldeactivator

Techwell 539 (T539)

T539, Tolytriazole derivative, is a kind of liquid metal deactivator with oil solubility which could be used in industrial lubricant oils especially gas turbine and R&O oil. The reference dosage is 200-500 ppm.

Specifications

Items	Limits	Test Methods
Appearance	Transparent yellowish liquid	visual
Main component	90% active material	ASTM D445
Kinetic Viscosity, 100°C, mm/s	70-90	ASTM D445
Flashing point, °C	150min	ASTM D92
Density, 20°C, kg/m ³	900-1000	ASTM D1298

Advantage:

High activity in low concentration

High performance in hydrotreated base oil

Excellent oxidation stability when combined with antioxidant

Low volatility

No diluter

Could be easily handled as liquid, excellent solubility in mineral oil

Package, Storage and Transportation:

Packed in 25L PE drum, 200L steel drum or 1000kg IBC tote. The storage containers should be protected from external force and kept tightly closed when not in use. It is nonflammable, inexplusive and low toxicity.

Caution:

When using T539, general precautions should be complied with for disposing dense chemicals and blending additives into base oil. It should be clean washed if it contacts skin, eyes or clothes.

Metal deactivator Techwell 551(T551)

T551, Benzotriazole derivative, could form chelate complex by used together with active metal ions in oil products such as copper, iron, nickel and Mg. to decrease the activity of metal ion, increase the stability of oil product, prevent from producing gum and prolong the storage duration of oil products, reflecting excellent anti-oxidation ability. It is better to be used with T551 in order to improve the function and decrease dosage of T551. The reference dosage is from 0.03% to 0.1%.

Specification

Items	Limits	Test Methods
Appearance	Brown transparent liquid	Visual
Kinetic Viscosity, 100 °C, mm ² /s	10-14	ASTM D445
Density, 20 °C, kg/m ³	910-1040	ASTM D1298
Flash Point (open cup), °C	130min	ASTM D92
Oxidation test	90min	ASTM D2272
Total base number, mgKOH/g	210-230	ASTM D2896
Solubility, °C	qualified	Visual

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 T551, 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

Metal deactivator Techwell 561(T561)

T561, Thiadiazole derivative, could specially decrease the corrosion activity to Cu, increase the stability of oil product, prevent from producing gum and prolong the storage duration of oil products, reflecting excellent anti-oxidation ability. When be used with ZDDP it can prominently decrease the Cu corrosion from ZDDP. The reference dosage is from 0.3% to 0.4%.

Specification

Items	Limits	Test Methods
Appearance	Brown transparent liquid	Visual
Kinetic Viscosity, 100 °C, mm ² /s	10-20	ASTM D445
Density, 20 °C, kg/m ³	report	ASTM D1298
Flash Point (open cup), °C	130min	ASTM D92
Acid value, mgKOH/g	12max	ASTM D2896
Cu-strip corrosion, rate	1max	ASTM D130
Sulfur, %(m/m)	26-29	ASTM D129
Water, %(m/m)	report	ASTM D95
Mechanical impurities, %(m/m)	report	ASTM D2273

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 T561, 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.

Metal deactivator
Techwell 571(T571)

T571, Thiadiazole derivative, an ashless EP/AW additive used in lubricating greases with excellent performance in boosting grease weld load and Timken OK value, also used as vulcanization accelerator in rubber industry.

Specification

Items	Limits	Test Methods
Appearance	Yellow powder	Visual
Melting Point, °C	150min	ASTM D92
Purity, % m/m	98min	HPLC
Sulfur, %(m/m)	60-64	ASTM D129
Mechanical impurities, %(m/m)	report	ASTM D2273

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 T571, 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.

Viscosity index improver Techwell 261 (T261)

T261, Polymethacrylate, is an excellent viscosity improver and pour point depressant which is widely used in aviation fluid, transmission oil, low-point fluid and inter-combustion oil. This produce perform excellent pour point ability especially for base oil II and III group. Similiar to Infinium SV261.

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	1600min	ASTM D445
Flash point(open cup), °C	180min	ASTM D92
SSI	25max	ASTM D5621
Thickening ability	8.5	SH/T0566

Transporation and storage:

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

Toxicity:

When using T261, 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.

Viscosity index improver Techwell 602(T602)

T602, Polymethacrylate, is an excellent pour point depressant which is widely used in aviation fluid, transmission oil, low-point fluid and inter-combustion oil. The reference dosage is 0.5%-2.0%.

Specification

Items	Limits	Limits	Test Methods
grade	T602A	T602B	
Kinetic Viscosity, 100°C, mm ² /s	200-400	500-700	ASTM D445
Flash point(open cup), °C	140min	165min	ASTM D92
Pour point, °C (0.5% in 150N)	-16	-20	Enterprise standard

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 T602, 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.

**Antirust additive
Techwell 701(T701)**

T701, Petroleum barium sulfonate with excellent hydrophilicity, as antirust additive, T701 is suitable to use in lubricant oil and grease.

Specification

Items	Limits	Test Methods
Appearance	Brownish red oily liquid	Visual
Barium sulfonate, %(m/m)	50min	Enterprise standard
Average Eq. Wt Gm/mL	1000-1100	ASTM D4052
Mechanical impurities, %(m/m)	0.1max	ASTM D2273
Water, %(m/m)	0.15max	ASTM D95
PH value	7	ASTM D974
Barium, %(m/m)	7.5	ASTM D5185

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 T701, 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.

Antirust additive Techwell 702(T702)

T702, Petroleum sodium sulfonate with excellent hydrophilicity, antirust and emulsifying properties.,as antirust additive, T702 is suit to dose in lubricant oil and grease. The reference dosage is 3.0%-15%.

Specification

Items	50#	45#	Test Methods
Appearance	Brownish red oily liquid		Visual
Sodium sulfonate, %(m/m)	50min	45min	Enterprise standard
Mineral oil, %(m/m)	48max	54max	
Inorganic salt, %(m/m)	0.05max	0.05max	ASTM D874
Water, %(m/m)	1.0max	1.0max	ASTM D95
PH value	7-8	7-8	ASTM D974
Average Molecular	400-450	400-450	ASTM D2502

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 T702,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.

**Antirust additive
Techwell 702(T702)**

T702, Petroleum sodium sulfonate with excellent hydrophilicity, antirust and emulsifying properties.,as antirust additive, T702 is suit to dose in lubricant oil and grease. The reference dosage is 3.0%-15%.

Specification

Items	60#	Test Methods
Appearance	Brownish red oily liquid	Visual
Sodium sulfonate, %(m/m)	55-65	Enterprise standard
Mineral oil, %(m/m)	35-45	
Inorganic salt, %(m/m)	0.05max	ASTM D874
Water, %(m/m)	1.0max	ASTM D95
PH value	7-8	ASTM D974
Average Molecular	400-450	ASTM D2502

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 T702,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.

Antirust additive Techwell 704(T704)

T704, Zinc Naphtanate, has the features of excellent oil solubility, antiwear and lubricating ability, as well as super antirust ability to various metals.

Specification

Items	Limits	Test Methods
Appearance	Brown transparent thick liquid	Visual
Water, %(m/m)	0.05max	ASTM D95
Mechanical impurities, %(m/m)	0.15max	ASTM D2273
Zinc, %(m/m)	8min	ASTM D5185
Corrosion(T3 Copper,100C,3H)	match	ASTM D130
Antirust ability	match	GB/T 2361

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 T704, 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.

Antirust additive Techwell 705(T705)

T705, Dinonylnaphthalene barium sulfonate, which has the features of excellent oil solubility, antiwear and lubricating ability, as well as super antirust ability to various metals. The product could be used as emulsifying and antirust additive in antiwear hydraulic oils, antirust agent in industrial lubricating oil, antirust agent in lubricating grease as well as antirust agent for engine fuel oil. The reference dosage is 1.0%-5.0%.

Specification

Items	Limits	Test Methods
Appearance	Brown transparent thick liquid	Visual
Kinetic Viscosity, 100°C, mm ² /s	120max	ASTM D445
Density (20°C), kg/m ³	1000min	ASTM D1298
Flash point (close cup), °C	160min	ASTM D93
Water, %(m/m)	0.1max	ASTM D95
Mechanical impurities, % (m/m)	0.15max	ASTM D2273
Barium, %(m/m)	7.0min	ASTM D5185
TBN, mgKOH/g	5 max	ASTM D2896
Humidity cabinet test, 96h	A min	ASTM D1748

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 T705, 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.

Antirust additive Techwell 706(T706)

T706, Dinonylnaphthalene calcium sulfonate, which has the features of excellent oil solubility, antiwear and lubricating ability, as well as super antirust ability to various metals. The product could be used as emulsifying and antirust additive in antiwear hydraulic oils, antirust agent in industrial lubricating oil, antirust agent in lubricating grease as well as antirust agent for engine fuel oil. The reference dosage is 1.0%-5.0%.

Specification

Items	Limits	Test Methods
Appearance	Brown transparent thick liquid	Visual
Kinetic Viscosity, 100°C, mm ² /s	report	ASTM D445
Density (20°C), kg/m ³	980min	ASTM D1298
Flash point (close cup), °C	165min	ASTM D93
Water, %(m/m)	0.1max	ASTM D95
Mechanical impurities, % (m/m)	0.1max	ASTM D2273
Calcium, %(m/m)	2.1min	ASTM D5185
TBN, mgKOH/g	1 max	ASTM D2896
Humidity cabinet test, 96h	A min	ASTM D1748

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 T706, 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.

Antirust additive Techwell 746(T746)

T746, Dodecene butanedioic acid has good oil solubility. As an excellent antirust agent, it can prevent metal surface from rusting and corrosion. It is widely used to blend steam turbine oil, machine tool oil, hydraulic oil, hydraulic transmission oil and antirust oil or grease, etc. Reference dosage is 0.02%~0.8%.

Specification

Items	Limits	Test Methods
Appearance	transparent thick liquid	Visual
Kinetic Viscosity, 100°C, mm ² /s	report	ASTM D445
Density (20°C), kg/m ³	report	ASTM D1298
Flash point (close cup), °C	90min	ASTM D93
PH	4.2min	ASTM D974
Acid value, mgKOH/g	235-395	ASTM D664
Iodine value, gl/100g	50-90	ASTM D5554
Cu-strip corrosion (100°C, 3h)	1max	ASTM D130
Liquid Corrosion Test: Distilled Water Synthetic Seawater Toughness of Harden Film	rustless rustless rustless	ASTM D665

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 T746, 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.

Antirust additive Techwell 747(T747)

T747, Low acid value dodecenylsuccinic acid monoester has good oil solubility. As an excellent antirust agent, it can prevent metal surface from rusting and corrosion. It is widely used to blend steam turbine oil, machine tool oil, hydraulic oil, hydraulic transmission oil and antirust oil or grease, etc. Reference dosage is 0.02%~0.8%.

Specification

Items	Limits	Test Methods
Appearance	Brown thick liquid	Visual
Kinetic Viscosity, 100°C, mm ² /s	report	ASTM D445
Density (20°C), kg/m ³	report	ASTM D1298
Flash point (close cup), °C	90min	ASTM D93
PH	4.4-4.6	ASTM D974
Acid value, mgKOH/g	150-200	ASTM D664
Cu-strip corrosion (100°C, 3h)	1max	ASTM D130
Liquid Corrosion Test: Distilled Water Synthetic Seawater Toughness of Harden Film	rustless rustless rustless	ASTM D665

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 T747, 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.

Water-Soluble Corrosion Inhibitor Techwell 750(T750)

T750 as a tribasic organic polycarboxylic acid, is an ashless corrosion inhibitor in variety water based metal working fluids, it compatible with hard water with lower foaming and excellent air release property, the reference dosage is from 0.25% to 1.1%.

Specification

Items	Limits	Test Methods
Appearance	White free-flowing granules	Visual
Molecular Weight g/mol	468.6	
Active content	50%	

Applications

All types of water based fluids

- Metal working fluids (semi-synthetic and synthetic fluids)
- High water based hydraulic fluids (HFC)
- Engine and other cooling systems

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 T750, 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.

Water-Soluble Corrosion Inhibitor Techwell 765(T765)

T765 as a tribasic organic polycarboxylic acid, is an ashless corrosion inhibitor in variety water based metal working fluids, it compatible with hard water with lower foaming and excellent air release property, the reference dosage is from 0.25% to 1.1%.

Specification

Items	Limits	Test Methods
Appearance	White free-flowing granules	Visual
Molecular Weight g/mol	468.6	
Active content	50%	

Applications

All types of water based fluids

- Metal working fluids (semi-synthetic and synthetic fluids)
- High water based hydraulic fluids (HFC)
- Engine and other cooling systems

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 T765, 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.

Water-Soluble Corrosion Inhibitor Techwell 785(T 785)

T785 as a tribasic organic polycarboxylic acid, is an ashless corrosion inhibitor in variety water based metal working fluids, it compatible with hard water with lower foaming and excellent air release property, the reference dosage is from 0.25% to 1.1%.

Specification

Items	Limits
Appearance	White wet powder
Density at 20 °C, kg/m ³	1000-1200
Active content,min	85%
Acid Value(mg KOH/g)	310-380

Applications

All types of water based fluids

- Metal working fluids (semi-synthetic and synthetic fluids)
- High water based hydraulic fluids (HFC)
- Engine and other cooling systems

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 T785, 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.

Pour point depressant Techwell 801(T801)

T801 is brownish red thick liquid with chemical name Alkyl naphthalene which can be used to lower freezing point. This product can improve low-temperature flow ability of oil products which mainly used in internal-combustion oil, machine oil and axle oil. Reference dosage is 0.2%~1.0%.

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	report	ASTM D445
Flash point(open cup), °C	180min	ASTM D92
Chroma	6max	ASTM D1500
Effective composition, %(m/m)	35min	Enterprise standard
Chlorine, %(m/m)	2max	ASTM D4951
Mechanical Impurities, %(m/m)	0.2max	ASTM D2273
Water, %(m/m)	0.2max	ASTM D95
Carbon residue, %(m/m)	4.0max	ASTM D189
Anti-scrape, OK value, N	111max	SH/T0532
Ash, %(m/m)	0.2max	ASTM D482
Pour point depression, °C	12min	ASTM D97

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 T801, 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.

Pour point depressant Techwell 803B(T803B)

T803B, Poly-a-olefine, shows light color and good pour point depression ability as well as lower viscosity. It can improve shear resistance markedly and enhance viscosity index of lube oil. T803B is ideal pour point depressant for blending light lube oil and heavy lube oil. It is widely used for depression of pour point of various industrial oils and internal-combustion engine oils.

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	1500	ASTM D445
Flash point(open cup), °C	120min	ASTM D92
Effective composition, %(m/m)	30min	SH/T 0034
Mechanical Impurities, %(m/m)	0.2max	ASTM D2273
Water, %(m/m)	0.05max	ASTM D95
Ash, %(m/m)	0.2max	ASTM D482
Pour point depression, °C	16min	ASTM D97

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 T803B, 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.

Pour point depressant Techwell 808(T808)

T808, vinyl acetate-fumaric acid ester copolymer is a new type of lubricant pour depressant as well as a kind of high-grade green environmental-friendly petroleum additive. As yellowish transparent liquid, it enjoys favorable performance on pour point depression, tackifying and viscosity index improving. It is capable of replacing traditional pour point depressant. thanks to its tinge color, excellent effect on pour point depression and good oil solubility. The dosage rate of this product is 5‰.

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	report	ASTM D445
Flash point(open cup), °C	160min	ASTM D92
Water, %(m/m)	trace	ASTM D95
Pour point depression, °C	16min	ASTM D97

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 T808, 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.

SL gasoline engine oil additive package Techwell 3059(T3059)

T3059 gasoline engine oil additive package has good dispersancy and anti-oxidation property which is composed of synthetic sulphonate, ashless dispersant, anti-oxidant and corrosion inhibitor, etc. This grade package is applied for SL gasoline engine oil.

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	80-140	ASTM D445
Density, 15°C, kg/m ³	900-1200	ASTM D1298
Calcium, %(m/m)	3.5min	ASTM D5185
Zinc, %(m/m)	2.1min	ASTM D5185
Phosphor, %(m/m)	1.6min	ASTM D5185
Nitrogen, %(m/m)	0.5min	ASTM D4951
TBN, mgKOH/g	105min	ASTM D2896

Dosage

Grade	Viscosity grade	Dosage(%)
SL	30 40 10W/30 15W/40 20W/40 20W/50	6.7
SJ	30 40 10W/30 15W/40 20W/40 20W/50	5.6
SG	30 40 10W/30 15W/40 20W/40 20W/50	4.7

Package, Storage ,Transportation and Usage:

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

SN gasoline engine oil additive package Techwell 3060(T3060)

T3060 gasoline engine oil additive package has good dispersancy and anti-oxidation property which is composed of synthetic sulphonate, ashless dispersant, anti-oxidant and corrosion inhibitor etc. This grade package is applied for SN gasoline engine oil.

Specification

Items	Limits	Test Methods
Kinetic viscosity, 100°C, mm ² /s	report	ASTM D445
Density, 15°C, kg/m ³	900-1200	ASTM D1298
Calcium, %(m/m)	2.5min	ASTM D5185
Zinc, %(m/m)	1.15min	ASTM D5185
Phosphor, %(m/m)	1.1min	ASTM D4951
Nitrogen, %(m/m)	0.75min	ASTM D4951
TBN, mgKOH/g	85min	ASTM D2896

Dosage

Grade	Viscosity grade	Dosage(%)
SN	30 40 10W/30 15W/40 20W/40 20W/50	7.8
SM	30 40 10W/30 15W/40 20W/40 20W/50	7.5

Package, Storage ,Transportation and Usage:

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

SC/CC universal engine oil additive package Techwell 3215(T3215)

T3215 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.

Specification

Items	Limits	Test Methods
Kinetic viscosity, 100°C, mm ² /s	report	ASTM D445
Density, 15°C, kg/m ³	950-1050	ASTM D1298
Flash point(open cup)°C	170min	ASTM D92
Zinc, %(m/m)	1.7min	ASTM D5185
Nitrogen, %(m/m)	0.48min	ASTM D4951
Calcium, %(m/m)	3.5min	ASTM D5185
TBN, mgKOH/g	105min	ASTM D2896

Dosage

Grade	Viscosity grade	Dosage(%)
SC/CC	Mono/multi grade	3.3
SB/CB	Mono/multi grade	2.8

Package, Storage ,Transportation and Usage:

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

SG/CF-4 universal engine oil additive package Techwell 3218(T3218)

T3218 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. T3218 meets API performance categories SG/CF-4 through SF/CD.

Specification

Items	Limits	Test Methods
Kinetic viscosity, 100°C, mm ² /s	report	ASTM D445
Density, 15°C, kg/m ³	1000-1050	ASTM D1298
Flash point(open cup)°C	170min	ASTM D92
Zn, %(m/m)	1.8min	ASTM D5185
Calcium, %(m/m)	4.3min	ASTM D5185
TBN, mgKOH/g	135min	ASTM D2896

Dosage

Grade	Viscosity grade	Dosage(%)
SG/CF-4	Mono/multi	6.0
SF/CD	Mono/multi	3.7

Package, Storage ,Transportation and Usage:

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

SJ/CH-4 universal engine oil additive package Techwell 3228(T3228)

T3228 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. T3218 meets API performance SJ/CH-4 with dosage 9.5%.

Specification

Items	Limits	Test Methods
Kinetic viscosity, 100°C, mm ² /s	report	ASTM D445
Density, 15°C, kg/m ³	950-1050	ASTM D1298
Flash point(open cup)°C	160min	ASTM D92
Zn, %(m/m)	0.950min	ASTM D5185
Calcium, %(m/m)	2.0min	ASTM D5185
Ph, %(m/m)	0.85min	ASTM D5185
N, %(m/m)	0.8min	ASTM D5185
TBN, mgKOH/g	70min	ASTM D2896

Dosage

Grade	Viscosity grade	Dosage(%)
SJ/CH-4	Mono/multi	9.5

Package, Storage ,Transportation and Usage:

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

SL/CI-4 universal engine oil additive package Techwell 3269(T3269)

T3269 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. T3269 meets API performance categories through SL/CI-4 to CF-4, The reference dosage is 11.0%- 7.0%

Specification

Items	Limits	Test Methods
Kinetic viscosity, 100°C, mm ² /s	90-100	ASTM D445
Density, 20°C, kg/m ³	990-1010	ASTM D1298
Flash point (open cup)°C	170min	ASTM D92
Zinc, %(m/m)	1.2-1.35	ASTM D5185
Nitrogen, %(m/m)	0.65-0.75	ASTM D4951
Boron, %(m/m)	0.12-0.16	ASTM D4951
Phosphor, %(m/m)	1.0-1.2	ASTM D4951
Calcium, %(m/m)	3.0-3.5	ASTM D5185
TBN, mgKOH/g	100-120	ASTM D2896

Dosage

Grade	Viscosity grade	Dosage(%)
SL/CI-4	5W/30,10W/30,10W/40,15W/40,20W/50	11.0
SJ/CH-4	5W/30,10W/30,10W/40,15W/40,20W/50	9.5
SJ/CG-4	5W/30,10W/30,10W/40,15W/40,20W/50	9.0
SJ/CF-4	5W/30,10W/30,10W/40,15W/40,20W/50	8.0
CF-4	10W/30,10W/40,15W/40,	7.7
CF	10W/30,10W/40,15W/40,	7.0

Package, Storage ,Transportation and Usage:

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

Gear oil additive package Techwell 4216(T4216)

T4216 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.

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	45-65	ASTM D445
Density, 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)	0.2-0.5	ASTM D4629
Sulfur, %(m/m)	25-35	ASTM D5185
Phosphor, %(m/m)	1.2-2.8	ASTM D5185

Dosage

Grade	Viscosity grade	Dosage(%)
GL-5	75W/90,80W/90,85W/90,85W/140	4.2
GL-4	75W/90,80W/90,85W/90	2.1
GL-3	Mono/multi grade	1.05
Heavy duty industry gear oil		1.5
Mid duty industry gear oil		1.0

Package, Storage ,Transportation and Usage:

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

Gear oil additive package Techwell 4218(T4218)

T4218 is one high grade gear oil additive package. This grade package reaches the requirement of API GL-5/GL-4/GL-3 grade vehicle gear oil.

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 40°C, mm ² /s	4-10	ASTM D445
Density, 20°C, kg/m ³	report	ASTM D1298
Flash point (open cup)°C	90min	ASTM D92
Chlorine, %(m/m)	non	ASTM D5185
Nitrogen, %(m/m)	0.3-0.5	ASTM D4629
Sulfur, %(m/m)	25-35	ASTM D5185
Phosphor, %(m/m)	1.2-2.8	ASTM D5185

Dosage

Grade	Viscosity grade	Dosage(%)
GL-5	75W/90,80W/90,85W/90,85W/140	4.2
GL-4	75W/90,80W/90,85W/90	2.1
GL-3	Mono/multi grade	1.05

Package, Storage ,Transportation and Usage:

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

Anti-wear Hydraulic oil additive package Techwell 5126(T5126)

T5126 is an additive package designed to meet the performance requirements of major hydraulic equipment manufacturers. It is the compound additives including EP anti-wear additive, antioxidant and antirust. In a finished hydraulic fluid, T5126 has the capability to provide anti-wear performance reserve, thermal oxidation stability, filterability and demulsibility in the vane pumps and systems, suit for mineral and synthetic base oil with dosage of 0.8-1.2%.

T5126 is capable of meeting the following specifications:

- Parker Denison HF-0, HF-1, HF-2 (HM, HV)
- Eaton M-2950-S and I-286-S3
- MAG P68, P69, P70 (HM, HV)
- DIN 51524-2 (HM); DIN 51524-3 (HV)
- ISO 11158 (HM, HV)
- GB11118.1-2011 (HM, HV)

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100 °C, mm ² /s	report	ASTM D445
Density, 15 °C, kg/m ³	900-1100	ASTM D1298
Flash point (open cup) °C	100min	ASTM D92
Sulfur, %(m/m)	11min	ASTM D129
Phosphor, %(m/m)	6.0min	ASTM D4951
Zn, %(m/m)	7.0min	ASTM D5185

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 T321A, 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.

Hydraulic oil additive package Techwell 5128(T5128)

T5128 additive package for ashless hydraulic oil is new type compound additive used in preparing high grade ashless AW hydraulic oil with dosage at 0.6-0.8%.

T5128 is capable of meeting the following specifications:

- Parker Denison HF-0, HF-1, HF-2 (HM, HV)
- Eaton M-2950-S and I-286-S3
- MAG P68, P69, P70 (HM, HV)
- DIN 51524-2 (HM); DIN 51524-3 (HV)
- ISO 11158 (HM, HV)
- GB11118.1-2011 (HM, HV)

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	25-40	ASTM D445
Density, 15°C, kg/m ³	1000-1100	ASTM D1298
Flash point (open cup)°C	120min	ASTM D92
Sulfur, %(m/m)	3.0min	ASTM D129
Phosphor, %(m/m)	3.0min	ASTM D4951

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 T5128, 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.

Multifunctional Industrial oil additive package Techwell 1208(T1208)

T1208 multifunctional industrial oil additive package ,with excellent hydrolytic stability, rust and corrosion resistance ,anti-foaming ability and demulsibility, used in TSA oil, DAB oil and HL oil blending. Similar to AC9321

Specification

Items	Limits	Test Methods
Kinetic Viscosity, 100°C, mm ² /s	report	ASTM D445
Density, 15°C, kg/m ³	1000-1100	ASTM D1298
Flash point (open cup)°C	120min	ASTM D92
Sulfur, %(m/m)	3.0min	ASTM D5185
Nitrogen, %(m/m)	2.0min	ASTM D4629

Grade	Dosage(%)
Turbine oil	0.5
Air compressor oil	0.6
Anti-flamming hydraulic oil	1.0-2.0

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 T1208,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.

SURFURIZED EP ADDITIVES FOR MWF

Grade	Sulfur Content (%)	Viscosity 40°C (mm ² /s)	Carrier	Color	Cu-strip corrosion (100°C, 5%1h)	Application
T1030	29	19	olefin	Orange	2b	All grade MWF
T1035	32	22		Brown	4a	Ferrous metal
T1225	22	13		Orange	4a	High speed machining
T1230	29	27		Orange	4a	Heavy duty ferrous metal
T1420	20	33		Orange	4a	Ferrous metal
T2015	> 16	20		Orange	4a	Ferrous metal
YSJZ10	> 10	22	Fatty ester	Orange	2b	Non ferrous metal
ZFSZ15	> 15	18		Orange	2b	Non ferrous & ferrous metal
ZFSZ12	> 12	19		Orange	2b	Non ferrous & ferrous metal
YS-26	> 26	22	Olefin/ fatty ester (OEM)	Orange	4a	Heavy duty ferrous metal
YS-15	> 15	20			2b	Heavy duty MWF
YS-10	> 10	15			2b	Excellent penetrability and flowability, for high speed machining and metal wire -drawing
YS-14	> 14	25			2b	Excellent EP and lubricating charactor