



**Pine Chemicals Expert**

***ROSIN, RESIN & TERPENES - ISO9001:2008***

**SUMMIT TRADE PTE LTD**  
**梧州市森美国际贸易有限公司**

---

9/F Baiyun Riverscape Tower, 5 Xijiang 2nd Road, Wuzhou, Guangxi, China (543001)  
Tel: (+86774) 2023678, 2048481 Fax: (+86774) 2048499 MSN: wzsummit@msn.com  
E-mail: summit@pinechem.net [Http://www.pinechem.net](http://www.pinechem.net)

# PRODUCT LIST

<b>SumRos™ ROSINS</b>	Gum Rosin	X, WW, WG
	Gum Rosin, Crushed	X, WW, WG, N, M, K
	Hydrogenated Rosin	HX, HHX, RHR, WWR
	Disproportionated Rosin	SUPER, EXPORT
	Polymerized Rosin	P140, P115, P95
	Maleated Rosin	M115, M103
	Disproportionated Rosinate	SODIUM SOAP, POTASSIUM SOAP
	Esterified Rosin	E95
	Refined Gum Rosin	R80
<b>SumRez™ RESINS</b>	Glycerol Rosin Ester	G85, G90
	Pentaerythritol Rosin Ester	P100, P103
	Maleic Resin	M130, M140
	Road-Marking-Paint Resin	R103, R105
	Rosin Modified Phenolic Resin	R2116, R2118, R2135, R2138
	Terpene Phenolic Resin	T8037, T803T
	Terpene Resin	T95, T105, T115, T125
	Methyl Rosinate	ESTER, HYDRO
	Hydrogenated Rosin Ester	H85, H100
	Ester Gum	ESTER, HYDRO
<b>SumFlu™ TURPS</b>	Gum Turpentine	SUPER
	Dipentene	90%, 93%
	Alpha Pinene	95%
	Beta Pinene	95%
	Pinane	98%
	Camphene	95%
	Camphor	DAB6, DAB8
	Borneol	55%
	Isobornyl Acetate	95%
	Linalool	95%
	Isoborneol	82%
	p-Menthane	95%
	p-Cymene	95%
	<b>SumFlu™ TERPENES</b>	Pine Oil
Terpineol		MU, PG
Alpha Terpineol		98%
Terpinolene		30%, 60%, 90%
Gamma Terpinene		90%
Terpinyl Acetate		95%
Dihydro Terpineol		95%
<b>SumTac™ TACKIFIERS</b>		Tung Oil
	Phenol Formaldehyde Resin	F7522
	Polyterpene Resin	S10, S25
	Hydrocarbon Resin	C5, C9, COPOLYMER
	Resin Dispersion	EMU-AA, EMU-AT, EMU-AW
	Styrenated Terpene Resin	ST80, ST100, ST120
	Pine Tar Oil	EXPORT
	Phenolic Resin	PH45, PH55, PH56

**Summit Trade Pte Ltd** is a private export trading company located at Wuzhou city, which was reformed and derived from the Export Sector of former state-run Wuzhou Foreign Economic Relations and Trade Union Corporation in 2006. We are professional on pine chemicals and export to Southeast Asia, Middle East, Europe, USA & Latin America worldwide with a 10,000mt supplying capacity.

With the international business experience for dozen years and advantage of local pine resource, we focus on dozens of pine chemicals such as gum rosin, rosin ester, modified resin, turpentine, pine oil, terpineol, etc. We are one of the companies with most abundant series specialized on rosin, turpentine & intensive processed derivates in China.

**Summit™ Products** are applicable to paint, ink, adhesive, rubber, paper, printing, daily chemical, medicine, electronics & many other industries and welcomed & purchased widely as important basic raw materials by domestic & overseas routine customers.

Applying ISO9001:2008 quality control management and maintaining a good beneficial associate & agency with qualified regular manufacturers, we respond actively to market changes & challenges and dedicate best services to distinguished customers with reasonable preferential price, reliable excellent quality and timely technical support.

**Important Notice:**

- The following products data & specification are believed to be accurate and presents with the best description as far as we can. We assume no liability resulting from it. The executable specification will be stipulated & confirmed in the sales contract.
- Product's specification may be adjusted or customized upon customer's particular request.

## GUM ROSIN

### Property & Usage

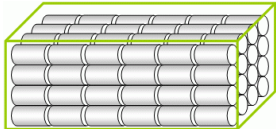
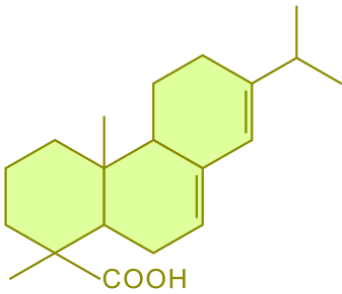
**SumRos™ Gum Rosin** is distilled from natural drops of crude gum substance from pine trees including pinus massoniana, kahsya, elliottii(u.m. 8% max.), ynensis, latteri, merkusii, etc. It is a kind of natural resin, a mixture of various organic acid with special chemical activity as an important raw material.

Usage in paint, printing ink, soap, rubber, paper, synthetic resin, electronic industry, organic synthesis, etc.

### Technical Data Sheet

GUM ROSIN	X GRADE	WW GRADE	WG GRADE
Appearance	transparent	transparent	transparent
Color (species color of gum rosin)	slight yellow	light yellow	yellow
Softening point (R&B, deg C)	76.0 min.	76.0 min.	75.0 min.
Acid value (mg/g)	166 min.	166 min.	165 min.
Unsaponifiable matters	5.0% max.	5.0% max.	5.0% max.
Insoluble matter in alcohol	0.030% max.	0.030% max.	0.030% max.
Dirt matters	0.020% max.	0.020% max.	0.030% max.

### Package & Notes

<b>Package</b> 225kg net galvanized iron drum 225kg net galvanized iron drum 25kg net plastic bag/kraft polybag 20kg net carton	<b>20'FCL load</b> 18mt (80drums) 21.6mt (96drums) 19.5mt (780bags) 17mt (850cartons)	
<b>Structural - C<sub>19</sub>H<sub>29</sub>COOH</b> 	<b>CAS Number</b> 8050-09-7  <b>HS Code</b> 38061010	
<b>Storage</b> In cool place, avoid fire and high temperature.		

## HYDROGENATED ROSIN

### Property & Usage

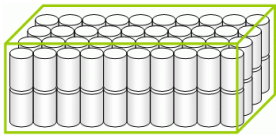
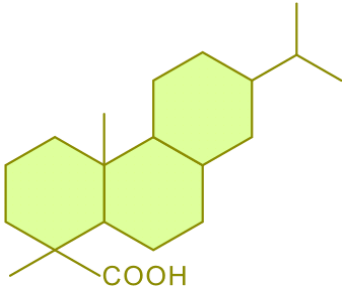
**SumRos™ Hydrogenated Rosin** is a low color, thermoplastic resin made from natural gum rosin via refine, hydrogenation or disproportion featured outstanding properties such as low-stable color, oxidation and aging resistance.

Usage in adhesive, synthetic rubber (as emollient and plasticizing agent), paint, ink, pigment, electronics industry(solid & liquid solder flux), paper, soap, etc.

### Technical Data Sheet

HYDROGENATED ROSIN	HX	HXX	RHR-1	RHR-3	WWR-1	WWR-3
Color method	Specie	Specie	Gardner	Gardner	Hazen	Hazen
Color number, max.	HX	HX	1	1	100	100
Softening point (deg C), min.	76	76	78	78	78	78
Acid value (mgKOH/g), min.	166	164	170	170	170	170
Alcohol insoluble matter, max.	0.02%	0.02%	-	-	-	-
Unsaponifiable matter, max.	7%	7%	5%	5%	-	-
Abietic acid, max.	2%	1%	2%	0.5%	1%	0.5%
Dehydroabietic acid, max.	8%	8%	10%	10%	20%	20%
Tetrahydro resin acid, min.	12%	30%	10%	30%	10%	30%
Hydrogenated resin acid, min.	-	-	90%	92%	-	-

### Package & Note

<b>Package</b> 225kg net galvanized iron drum 225kg net galvanized iron drum 20kg net carton	<b>20'FCL load</b> 18mt (80drums) 21.6mt (96drums) 17mt (850cartons)	
<b>Structural - C<sub>19</sub>H<sub>31</sub>COOH</b> 	<b>CAS Number</b> 65997-06-0  <b>HS Code</b> 38069000.90	<b>EC# (EINECS#)</b> 266-041-3  <b>Standard</b> GB/T 14020-92
	<b>Storage</b> In cool place, avoid fire and high temperature.	

## DISPROPORTIONATED ROSIN

### Property & Usage

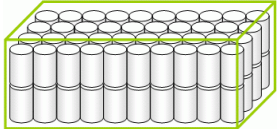
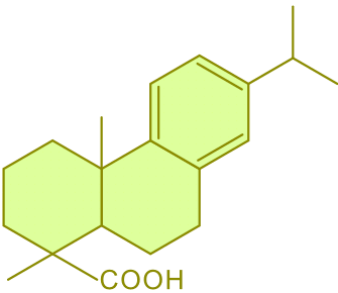
**SumRos™ Disproportionated Rosin** is made from gum rosin by isomerizing via a Pd-C catalyst. Mainly dehydroabietic acid element provides superior chemical stability.

Usage in potassium soap, synthetic rubber (SBR, NBR, ABS, etc.), water-solubility PSA, etc.

### Technical Data Sheet

DISPROPORTIONATED ROSIN	SUPER GRADE	EXPORT GRADE
Appearance	transparent	transparent
Color (refer to gum rosin species)	WW min.	N min.
Softening point (R&B, deg C)	75.0 min.	75.0 min.
Acid value (mgKOH/g)	155 min.	150 min.
Abietic acid	0.1% max.	0.5% max.
Dehydroabietic acid	52% min.	45% min.
Unsaponifiable matter	10% max.	12% max.

### Package & Note

<b>Package</b> 225kg net galvanized iron drum 225kg net galvanized iron drum 20kg net carton	<b>20'FCL load</b> 18mt (80drums) 21.6mt (96drums) 17mt (850cartons)	
<b>Structural - C<sub>19</sub>H<sub>27</sub>COOH</b> 	<b>CAS Number</b> 8052-10-6  <b>HS Code</b> 38069000.10	<b>EC# (EINECS#)</b> 232-475-7  <b>Standard</b> LY/T1358-1999
	<b>Storage</b> In cool place, avoid fire and high temperature.	

## POLYMERIZED ROSIN

### Property & Usage

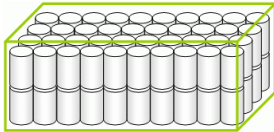
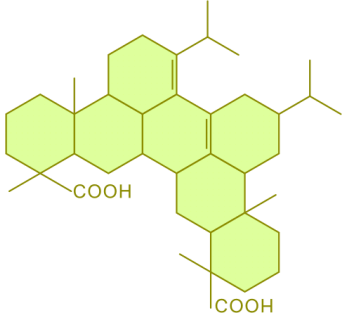
**SumRos™ Polymerized Rosin** is made from gum rosin by polymerization via catalyst. It has many excellent properties including high softening point, anti-oxidation, non-crystallizing and good compatibility with film-forming agent.

Usage in ink, adhesive, paint, varnish, soldering flux, synthetic resin, etc.

### Technical Data Sheet

POLYMERIZED ROSIN	P140	P115	P95
Appearance	transparent	transparent	transparent
Color (USDA)	WG-M grade	WG-M grade	WG-M grade
Softening point (R&B, deg C)	135 - 145	110 - 120	90 - 100
Acid value (mgKOH/g)	140 min.	145 min.	150 min.
Insoluble matter in alcohol	0.03% max.	0.03% max.	0.03% max.
Dissoluble matter in hot water	0.20% max.	0.20% max.	0.20% max.

### Package & Note

<b>Package</b> 225kg net galvanized iron drum 225kg net galvanized iron drum 20kg net carton	<b>20'FCL load</b> 18mt (80drums) 21.6mt (80drums) 17mt (850cartons)	
<b>Structural - C<sub>40</sub>H<sub>60</sub>O<sub>4</sub></b> 	<b>CAS Number</b> 65997-05-9  <b>HS Code</b> 38069000.90	<b>EC# (EINECS#)</b> polymer  <b>Standard</b> ZB B72008-89
	<b>Storage</b> In cool place, avoid fire and high temperature.	

## MALEATED ROSIN

### Property & Usage

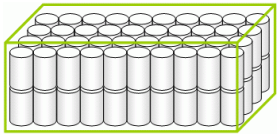
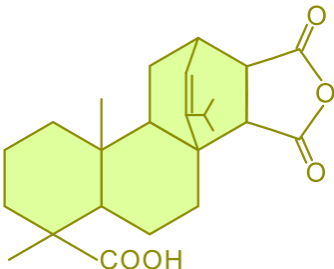
**SumRos™ Maleated Rosin** is famous for its good color and little impurity. It is used as a raw material for sizing agent in papermaking. Its dosage may be reduced when used as reinforcing sizing agent. Also, it is useful to disperse sizing agent with emulsifiers in order to reduce its dosage and alum, which can reduce the total cost of papermaking.

Usage in gravure printing ink and paper-making.

### Technical Data Sheet

MALEATED ROSIN	M115	M103
Appearance	transparent	transparent
Color (Gardner)	8 max.	8 max.
Softening point (R&B, deg C)	106 min.	85 min.
Acid value (mgKOH/g)	220 min.	175 min.
Saponification value	280 min.	192 min.

### Package & Note

<b>Package</b> 230kg net galvanized iron drum 230kg net galvanized iron drum 20kg net carton	<b>20'FCL load</b> 18.4mt (80drums) 22.08mt (96drums) 17mt (850cartons)	
<b>Structural - C<sub>24</sub>H<sub>32</sub>O<sub>5</sub></b> 	<b>CAS Number</b> 8050-28-0  <b>HS Code</b> 38069000.90	<b>EC# (EINECS#)</b> 232-480-4  <b>Standard</b> GB/T 14021-92
	<b>Storage</b> In cool place, avoid fire and high temperature.	

## DISPROPORTIONATED ROSINATE

### Property & Usage

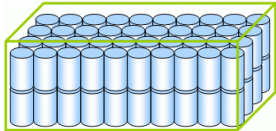
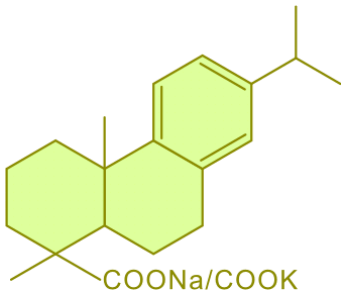
**SumRos™ Disproportionated Rosinate** is obtained by saponification of alkali metals (sodium or potassium) and disproportionated rosin. It's also name as sodium rosinate or potassium rosinate. The product may increase the viscosity & plasticity of synthetic rubber which may improve tensile strength and heat resistance.

Usage as emulsifier for synthetic rubbers (SBR, CR, NBR) and ABS plastics.

### Technical Data Sheet

DISPROPORTIONATED ROSINATE	SODIUM SOAP	POTASSIUM SOAP
Solid Content	70 +/- 1%	80 +/- 1%
Color (Gardner)	4 max.	4 max.
pH (25 deg C)	9.2 - 10.0	9.2 - 9.8
Salt abietic	0.25% max.	0.25% max.
Salt dehydroabietic	36% min.	43% min.
Chloride (as NaCl/KCl)	0.20% max.	0.20% max.
Unsaponifiable material	8 - 13%	8 - 13%
Acid number (mgKOH/g)	12 +/- 2	12 +/- 2

### Package & Notes

<b>Package</b> 200kg net galvanized iron drum 200kg net galvanized iron drum	<b>20'FCL load</b> 16mt (80drums) 16mt (80drums)-pallet	
<b>Structural</b> - $C_{19}H_{29}-COONa/COOK$	<b>CAS Number</b> 9010-59-7/68648-58-8	<b>EC# (EINECS#)</b> polymer
	<b>HS Code</b> 38069000.10	<b>Standard</b> industry standard
	<b>Storage</b> In cool place, avoid fire and high temperature.	

## ESTERIFIED ROSIN

### Property & Usage

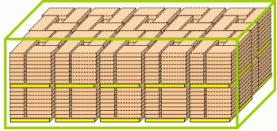
**SumRos™ Esterified Rosin** is a kind of partial ester of gum rosin. The high polarity, excellent polymer compatibility and presence of increased levels of rosin acids in this resin make it useful in a wide variety of adhesives. It's soluble in aromatic and aliphatic hydrocarbon solvents, esters, ketones and chlorinated solvents. Insoluble in alcohol and water.

Usage for use in high vinyl acetate EVA hot melt adhesives to impart improved wetting and increased polarity. Its ability to form salts with organic and inorganic bases allows water dispersability. This resin can also be used in construction adhesives, rubber compounding, sealants, coatings and other applications.

### Technical Data Sheet

ESTERIFIED ROSIN	E95
Appearance	transparent piece or granular
Color (Gardner)	1 - 4
Softening point (R&B, deg C)	90 - 100
Acid value (mgKOH/g)	70 - 150

### Package & Notes

<b>Package</b> 25kg net kraft polybag 25kg net kraft polybag	<b>20'FCL load</b> 17.5mt (700bags) 16mt (640bags)-pallet	
<b>Structural -</b> n/a	<b>CAS Number</b> n/a	<b>EC# (EINECS#)</b> polymer
	<b>HS Code</b> 38069000.90	<b>Standard</b> industry standard
	<b>Storage</b> In cool place, avoid fire and high temperature.	



## REFINED GUM ROSIN

### Property & Usage

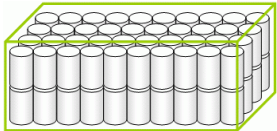
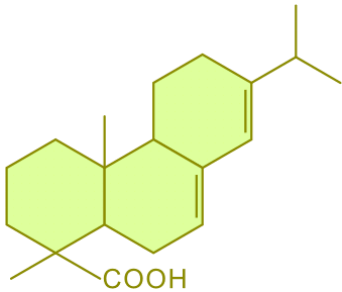
**SumRos™ Refined Gum Rosin** is refined from natural gum rosin to decrease the rosin oxidation and has lighter color, better performance and less heavy metal content.

Use in high-quality synthetic resin, paint, coating, printing ink, electronics, organic synthesis, etc.

### Technical Data Sheet

REFINED GUM ROSIN	R80
Appearance	slight yellowish solid
Color (Gardner)	1 - 2
Softening point (R&B, deg C)	80 +/- 3
Acid value (mg/g)	170 min.
Unsaponifiable matters	5.0% max.

### Package & Notes

<b>Package</b> 225kg net galvanized iron drum 225kg net galvanized iron drum 25kg net plastic bag/kraft polybag 20kg net carton	<b>20'FCL load</b> 18mt (80drums) 21.6mt (96drums) 19.5mt (780bags) 17mt (850cartons)	
<b>Structural - C<sub>19</sub>H<sub>29</sub>COOH</b> 	<b>CAS Number</b> 8050-09-7  <b>HS Code</b> 38061010  <b>Storage</b> In cool place, avoid fire and high temperature.	

## GLYCEROL ROSIN ESTER

### Property & Usage

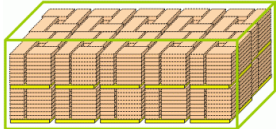
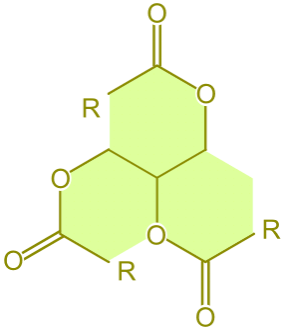
**SumRez™ Glycerol Rosin Ester** is made from gum rosin or refined natural rosin via esterification of glycerol. It features as good stability and anti-aging ability.

Usage in pressure-sensitive adhesive (PSA) and other tackifier and adhesive products.

### Technical Data Sheet

GLYCEROL ROSIN ESTER	G85	G90
Appearance	transparent granular or piece	transparent granular or piece
Color (Gardner)	2-5 max.	2-5 max.
Softening point (R&B, deg C)	85 +/- 3	90 +/- 3
Acid value (mgKOH/g)	20 max.	20 max.
Solubility (1:1 with benzol)	clear	clear

### Package & Note

<b>Package</b> 25kg net kraft polybag 25kg net kraft polybag	<b>20'FCL load</b> 17.5mt (700bags) 16mt (640bags)-pallet	
<b>Structural</b> - $(C_{19}H_{29}COO)_3C_3H_5$ 	<b>CAS Number</b> 8050-31-5  <b>HS Code</b> 38069000.90	<b>EC# (EINECS#)</b> 232-482-5  <b>Standard</b> Q/HG14-032-80
	<b>Storage</b> In cool place, avoid fire and high temperature.	

## PENTAERYTHRITOL ROSIN ESTER

### Property & Usage

**SumRez™ Pentaerythritol Rosin Ester** is made from gum rosin or refined natural rosin via esterification of pentaerythritol. It features as good stability and anti-aging ability.

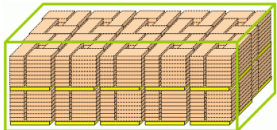
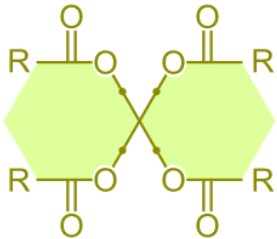
It can greatly improve the adhesion power of EVA gum with good anti-oxidation because of its extremely pale color, low odor and excellent heat stability, Dissolvable in petroleum hydrocarbons, aromatic hydrocarbons, esters, ketones and other solvent. For its excellent compatibility with various kinds of resins, it may be used across the board with NR, CR, SBR, EVA, SIS, SBS and other high polymers.

Usage in hotmelt adhesive (HMA), pressure-sensitive adhesive (PSA) and other tackifier.

### Technical Data Sheet

PENTAERYTHRITOL ROSIN ESTER	P100	P103
Appearance	transparent granular or piece	transparent granular or piece
Color (Gardner)	2-5 max.	2-5 max.
Softening point (R&B, deg C)	100 +/- 3	103 +/- 3
Acid value (mgKOH/g)	20 max.	20 max.
Solubility (1:1 with benzol)	clear	clear

### Package & Note

<b>Package</b> 25kg net kraft polybag 25kg net kraft polybag	<b>20'FCL load</b> 17.5mt (700bags) 16mt (640bags)-pallet	
<b>Structural - C(CH<sub>2</sub>COOR)<sub>4</sub></b> 	<b>CAS Number</b> 8050-26-8  <b>HS Code</b> 38069000.90	<b>EC# (EINECS#)</b> 232-479-9  <b>Standard</b> industry standard
	<b>Storage</b> In cool place, avoid fire and high temperature.	

## MALEIC RESIN

### Property & Usage

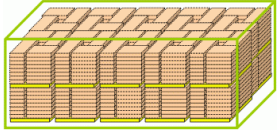
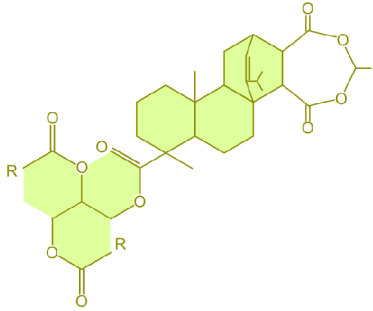
**SumRez™ Maleic Resin** is made from gum rosin and maleic anhydride via esterification with polyhydric alcohol. It is easy compatible with various solvents including coal tar oil, ester, vegetable oil and turpentine oil. Application for surface coatings and primers to improve the gloss, hardness, drying speed, abrasion resistance and yellow resistance.

Usage in polyurethane (PU) paint, acid hardening paint, nitrocellulose (NC) paint, amino backing paint, gravure printing ink, spray & varnish etc.

### Technical Data Sheet

MALEIC RESIN M130	M130	M140
Appearance	transparent granular or piece	transparent granular or piece
Color (Gardner)	3-5 max.	3-5 max.
Softening point (R&B, deg C)	130 +/- 5	140 +/- 5
Acid value (mgKOH/g)	30 max.	30 max.
Solubility (1:1 with benzol)	clear	clear

### Package & Note

<b>Package</b> 25kg net kraft polybag 25kg net kraft polybag	<b>20'FCL load</b> 17.5mt (700bags) 16mt (640bags)-pallet	
<b>Structural - (C<sub>4</sub>H<sub>2</sub>O<sub>3</sub>·C<sub>3</sub>H<sub>8</sub>O<sub>3</sub>)<sub>x</sub></b> 	<b>CAS Number</b> 94581-16-5  <b>HS Code</b> 38069000.90	<b>EC# (EINECS#)</b> 305-515-7  <b>Standard</b> Q/HG14-039080
	<b>Storage</b> In cool place, avoid fire and high temperature.	

## ROAD-MARKING-PAINT RESIN

### Property & Usage

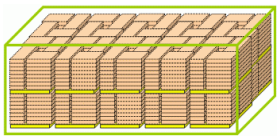
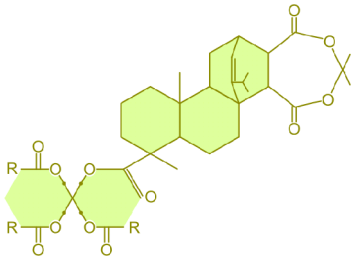
**SumRez™ Road-Marking-Paint Resin** is made from gum rosin, high molecular polymer, unsaturated dibasic acid and polyhydric alcohol by condensation and esterification, adding heat-stability agent and light-stability agent. It dissolves in aromatic, aliphatic, ester, and keto solvent.

Usage in road marking paint in traffic facilities. It's specialized for hot-melt road-marker paint and used as interlinking agent. Applying with it, the road-marker paint features anti-pressure, anti-abrasion, anti-pollution, appropriate flowage, fast drying and other good performance. So it can melt and mix with petroleum resin & EVA to make white or yellow road-marker paint.

### Technical Data Sheet

ROAD-MARKING-PAINT RESIN	R103	R105
Appearance	transparent piece or granular	transparent piece or granular
Color (Gardner)	3-5 max.	3-5 max.
Softening point (R&B, deg C)	103 +/- 3	105 +/- 3
Acid value (mgKOH/g)	15 max.	25 max.
Compatibility with petroleum resin	compatible	compatible
<b>Recommended Application Formula:</b>		
Road-marking paint resin	11.5%	Poly ethylene wax (PE wax) 1%
Petroleum resin (hydrocarbon 5)	5%	Hydrogenated castor oil 1%
Calcium carbonate (425 mesh)	22%	Titanium dioxide 5%
Quartz sand (60 mesh)	37.5%	Small glass bead 15%
Plastic-enhanced agent (DOP)	2%	Total Ingredients: 100%

### Package & Note

<b>Package</b> 25kg net kraft polybag 25kg net kraft polybag	<b>20'FCL load</b> 17.5mt (700bags) 16mt (640bags)-pallet	
<b>Structural-macromolecule polymer</b> 	<b>CAS Number</b> 94581-17-6	<b>EC# (EINECS#)</b> 305-516-2
	<b>HS Code</b> 38069000.90	<b>Standard</b> industry standard
	<b>Storage</b> In cool place, avoid fire and high temperature.	

## ROSIN MODIFIED PHENOLIC RESIN

### Property & Usage

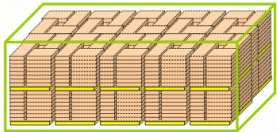
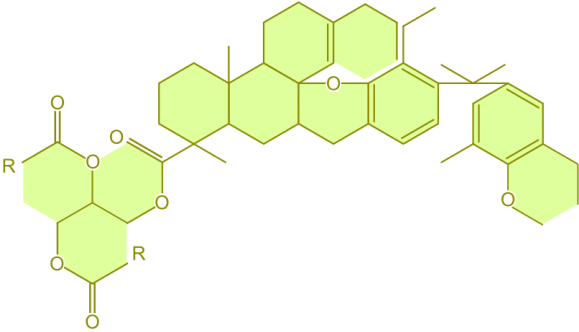
**SumRez™ Rosin Modified Phenolic Resin** is the vacuum treated product of esterification of polyhydric acid with the poly-condensation of rosin, formaldehyde and phenol / bisphenol A / para-tertiary-butyl phenol / para-tertiary-octyl phenol. It dissolves in tar, ester, gum turpentine and similar solvents, partly in petroleum products but not in alcohol solvents. It melts and mixes well with vegetable oils and features high softening point, good hardness, fast drying and high gloss.

Usage in paint, web-offset printing ink and offset printing ink such as paper-roll printing.

### Technical Data Sheet

ROSIN MODIFIED PHENOLIC RESIN	R2116	R2118	R2135	R2138
Appearance	pieces	pieces	pieces	pieces
Color (Gardner)	12 max.	12 max.	12 max.	12 max.
Softening point (R&B, deg C)	151-162	157-165	160-175	160-175
Acid value (mgKOH/g)	20 max.	20 max.	25 max.	25 max.
Solubility (1:1 with benzol)	clear	clear	clear	clear

### Package & Note

<p><b>Package</b> 25kg net kraft polybag 25kg net kraft polybag</p>	<p><b>20'FCL load</b> 17mt (680bags) 16mt (640bags)-pallet</p> 
<p><b>Molecular -</b>  <b>R2116 (CAS No. 68152-70-5)</b>  <math>(C_{15}H_{16}O_2 \cdot C_3H_8O_3 \cdot CH_2O \cdot W_{99})_x</math>  <b>R2118 (CAS No. 68152-61-4)</b>  <math>(C_{15}H_{16}O_2 \cdot C_5H_{12}O_4 \cdot CH_2O \cdot W_{99})_x</math>  <b>R2135 (CAS No. 67700-49-6)</b>  <math>(C_{10}H_{14}O \cdot C_3H_8O_3 \cdot CH_2O \cdot W_{99})_x</math>  <b>R2138 (CAS No. 68457-91-0)</b>  <math>(C_{14}H_{22}O \cdot C_5H_{12}O_4 \cdot CH_2O \cdot W_{99})_x</math></p>	<p><b>Structural -</b></p> 
<p><b>HS Code - 38069000.90</b> <b>Standard - Q/HG14-037-80</b></p>	<p><b>Storage</b> In cool place, avoid fire and high temperature.</p>

## TERPENE PHENOLIC RESIN

### Property & Usage

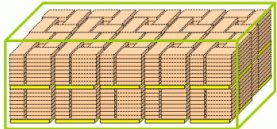
**SumRez™ Terpene Phenolic Resin** is made from gum rosin and phenol. It features as high softening point & light color, close distribution of molecular weight, superior tackifying ability & heat-resistance, extensive solvency & good phase with various kinds of elastomer or resin, and a longer period of the tackifying ability at early stage for solvent adhesive.

Usage in chloronorgutta rubber adhesive for PVC artificial leather, dismodule type of CR adhesive, hot-melt adhesive & adhesive tape, and sole adhesive of top grade shoes.

### Technical Data Sheet

TERPENE PHENOLIC RESIN	T8037	T803T
Appearance	irregular pieces	irregular pieces
Color (Gardner)	7 max.	10 max.
Softening point (R&B, deg C)	145 - 160	145 - 160
Acid value (mgKOH/g)	45 - 60	45 - 60

### Package & Note

<b>Package</b> 25kg net kraft polybag 25kg net kraft polybag	<b>20'FCL load</b> 18mt (720bags) 16mt (640bags)-pallet	
	<b>Structural - CH<sub>2</sub>O·W<sub>99</sub></b> n/a	
	<b>HS Code</b> 39111000	<b>Standard</b> industry standard
	<b>Storage</b> In cool place, avoid fire and high temperature.	

## TERPENE RESIN

### Property & Usage

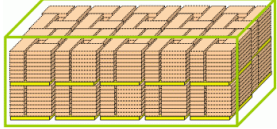
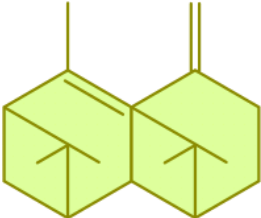
**SumRez™ Terpene Resin** is made from gum turpentine via Louis and has a good solubility in aromatic hydrocarbon and vegetable oil.

Usage in rubber, adhesive, hot-melt paint, printing ink.

### Technical Data Sheet

TERPENE RESIN	T95	T105	T115	T125
Appearance	piece	piece	piece	piece
Color (Gardner)	4 - 6	4 - 6	4 - 6	2 - 3
Softening point (R&B, deg C)	95 +/- 5	105 +/- 5	115 +/- 5	125 +/- 5
Acid value (mgKOH/g)	1 max.	1 max.	1 max.	1 max.

### Package & Note

<b>Package</b> 25kg net kraft polybag 25kg net kraft polybag	<b>20'FCL load</b> 18mt (720bags) 16mt (640bags)-pallet	
<b>Structural - (C<sub>10</sub>H<sub>16</sub>)<sub>n</sub></b> 	<b>CAS Number</b> 9003-74-1  <b>HS Code</b> 39111000	<b>EC# (EINECS#)</b> 500-245-8  <b>Standard</b> LY/T 1453-1999
	<b>Storage</b> In cool place, avoid fire and high temperature.	

## METHYL ROSINATE

### Property & Usage

**SumRez™ Methyl Rosinate** is made from gum rosin or hydrogenated rosin through esterification with methanol. It has a superior cold resistance ability and may maintain a valid viscosity under -40 deg C circumstance.

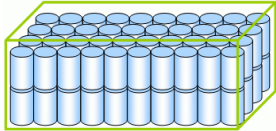
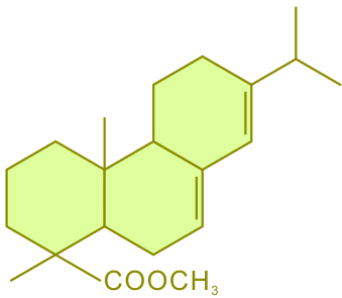
Usage in adhesive, solder flux, surface active agent, coatings, etc.

### Technical Data Sheet

METHYL ROSINATE	ESTER GRADE	HYDRO GRADE
Appearance	pale yellow sticky transparent liquid	pale yellow sticky transparent liquid
Color (Gardner)	2 max.	2 max.
Acid value (mgKOH/g)	8 max.	8 max.
*Viscosity (mPa.s, 25 deg C)	2000 - 4000	4000 - 7000
*Refractive index (20 deg C)	1.5250 about	1.5150 about
*Relative gravity (D 20/4)	1.023	1.018
*Freezing point (deg C)	-11	3

(\*reference only, not for test)

### Package & Notes

<b>Package</b> 200kg net galvanized iron drum 200kg net galvanized iron drum	<b>20'FCL load</b> 16mt (80drums) 16mt (80drums)-pallet	
<b>Structural - C<sub>21</sub>H<sub>32</sub>O<sub>2</sub></b> 	<b>CAS Number</b> 68186-14-1/8050-15-5	<b>EC# (EINECS#)</b> 269-035-9
	<b>HS Code</b> 38069000.90	<b>Standard</b> industry standard
	<b>Storage (Flash Point 190 deg C)</b> In cool place, avoid fire and high temperature.	

## HYDROGENATED ROSIN ESTER

### Property & Usage

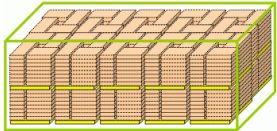
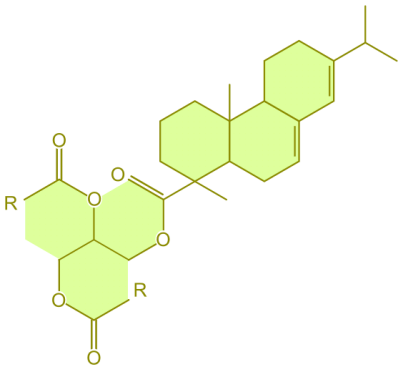
**SumRez™ Hydrogenated Rosin Ester** is the glycerol ester of highly hydrogenated refined gum rosin. It is an exceptionally pale thermoplastic resin that has outstanding resistance to oxidation and to discoloration caused by heat and aging. Used as a tackifier resin in various types of adhesives, and in protective and barrier type coatings that require an exceptional degree of color retention and oxidation resistance.

Usage as tackifier resin in PSA adhesives for tapes, labels, medical appliances, and specialty application and in lamination of metal foil, paper, cloth, cellophane, and cellulose acetate films.

### Technical Data Sheet

HYDROGENATED ROSIN ESTER	H85	H100
Appearance	granular or piece	granular or piece
Color (Gardner)	3 - 6	3 - 6
Softening point (R&B, deg C)	85 +/- 3	100 +/- 3
Acid value (mgKOH/g)	10 max.	20 max.
Solubility (1:1 with benzol)	clear	clear
Specific gravity (25 deg C)	1.06 - 1.09	1.06 - 1.09

### Package & Notes

<b>Package</b> 25kg net kraft polybag 25kg net kraft polybag	<b>20'FCL load</b> 17.5mt (700bags) 16mt (640bags)-pallet	
<b>Structural - C<sub>3</sub>H<sub>8</sub>O<sub>3</sub>·W<sub>99</sub></b> 	<b>CAS Number</b> 65997-13-9  <b>HS Code</b> 38069000.90	<b>EC# (EINECS#)</b> 232-476-2  <b>Standard</b> industry standard
	<b>Storage</b> In cool place, avoid fire and high temperature.	

## ESTER GUM

### Property & Usage

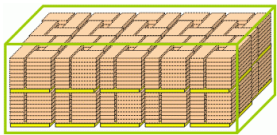
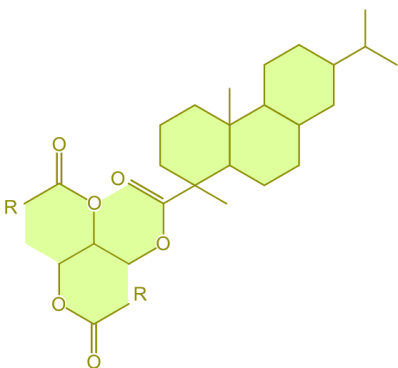
**SumRez™ Ester Gum** is made from gum rosin or hydrogenated rosin through esterification with edible/pharmacy grade glycerol. Both are food grade for food additive.

Usage as emulsification stabilizer in drinks and as chewing ingredient in chewing gum & bubble gum. The hydrogenated ester gum can be also used as tackifier for cigarette filter adhesives.

### Technical Data Sheet

ESTER GUM (FOOD GRADE)	ESTER GRADE	HYDRO GRADE
Color (Gardner)	8 max.	8 max.
Softening point (R&B, deg C)	80 - 88	78 - 88
Acid value (mgKOH/g)	3 - 8	3 - 8
Solubility (1:1 with benzol)	clear	clear
Specific gravity (25 deg C/ 25 deg C)	1.080 - 1.090	1.060 - 1.070
Ash content	0.1% max.	0.1% max.
Arsenic content	0.0002% max.	0.0002% max.
Heavy metal (as Pb)	0.002% max.	0.002% max.

### Package & Notes

<b>Package</b> 25kg net kraft polybag 25kg net kraft polybag	<b>20'FCL load</b> 17.5mt (700bags) 16mt (640bags)-pallet	
<b>Structural - C<sub>63</sub>H<sub>68</sub>O<sub>3</sub></b> 	<b>CAS Number</b> 8050-31-5	<b>EC# (EINECS#)</b> 232-482-5
	<b>HS Code</b> 38069000.90	<b>Standard</b> GB10287-88
	<b>Storage</b> In cool place, avoid fire and high temperature.	

## GUM TURPENTINE

### Property & Usage

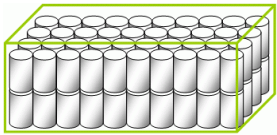
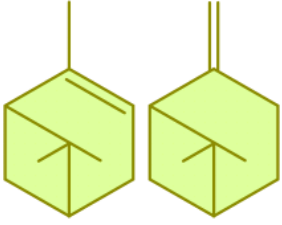
**SumFlu™ Gum Turpentine** is distilled and rectified from pine resin, which component is alpha pinene and beta pinene. It is a kind of natural essential oil, a mixture of various terpenoid and hydrocarbon with special chemical activity.

Usage in paint, synthetic camphor, terpineol, synthetic perfume, medicine production, synthetic resin, organic chemical industry, etc.

### Technical Data Sheet

GUM TURPENTINE	SUPER GRADE
Color & appearance	clean, transparent
Specific gravity (20 / 4 deg C)	0.87 max.
Refractive index (20 deg C)	1.4650 - 1.4740
Initial distilling point	150 deg C min.
Distillate (below 170 deg C)	90% min.
Acid value (mgKOH/g)	0.5 max.

### Package & Note

<b>Package</b> 190kg net galvanized iron drum 175kg net galvanized iron drum 150kg net galvanized iron drum 20' ISO tank container	<b>20'FCL load</b> 15.2mt (80drums) 14mt (80drums) 18mt (120drums) 20mt about	
<b>Structural - C<sub>10</sub>H<sub>16</sub></b> 	<b>CAS Number</b> 8006-64-2  <b>HS Code</b> 38051000  <b>UN NO.</b> 1299	<b>EC# (EINECS#)</b> 232-350-7  <b>Standard</b> GB/T 12901-2006  <b>IMCO Class</b> 3.3
<b>Storage (Flash Point 35 deg C)</b> In cool place, avoid fire and high temperature.		

## DIPENTENE

### Property & Usage

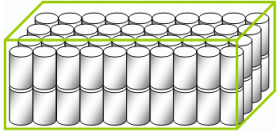

**SumFlu™ Dipentene** is the by-product of gum turpentine intensive processing via isomerization or hydration like making camphor, terpineol, etc.

Usage in rubber, synthetic perfume and daily detergent.

### Technical Data Sheet

DIPENTENE	90%	93%
Color	colorless to yellowish transparent liquid	colorless to yellowish transparent liquid
Specific gravity (20 deg C)	0.85 - 0.88	0.85 - 0.88
Dioptré (20 deg C)	1.460 - 1.490	1.460 - 1.490
Distillation range (170-190 deg C)	90% min.	93% min.

### Package & Note

<b>Package</b> 190kg net galvanized iron drum 175kg net galvanized iron drum 150kg net galvanized iron drum 20' ISO tank container	<b>20'FCL load</b> 15.2mt (80drums) 14mt (80drums) 18mt (120drums) 20mt about	
<b>Structural - C<sub>10</sub>H<sub>16</sub></b> 	<b>CAS Number</b> 138-86-3  <b>HS Code</b> 29021990  <b>UN NO.</b> 2052	<b>EC# (EINECS#)</b> 205-341-0  <b>Standard</b> Q/HG11-192-80  <b>IMCO Class</b> 3.3
<b>Storage (Flash Point 45 deg C)</b> In cool place, avoid fire and high temperature.		

## ALPHA PINENE

### Property & Usage

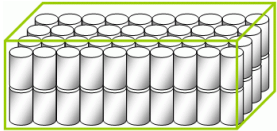

**SumFlu™ Alpha Pinene** is obtained from distilling gum turpentine. It has an active property because of its double carbolic key and carbolic ring.

Usage in synthesis camphor, borneol, terpineol and perfume.

### Technical Data Sheet

ALPHA PINENE	95%
Appearance	clear transparent liquid
Color (Pt-Co method)	35 max.
Specific gravity (d 20/4)	0.855 - 0.865
Refractive index (n 20/D)	1.4640 - 1.4680
Acid value (mgKOH/g)	0.5 max.
Moisture	0.1% max.
Purity (GC analysis)	95% min.

### Package & Note

<b>Package</b> 190kg net galvanized iron drum 175kg net galvanized iron drum 150kg net galvanized iron drum 20' ISO tank container	<b>20'FCL load</b> 15.2mt (80drums) 14mt (80drums) 18mt (120drums) 20mt about	
<b>Structural - C<sub>10</sub>H<sub>16</sub></b>  	<b>CAS Number</b> 80-56-8  <b>HS Code</b> 29021990  <b>UN NO.</b> 2368	<b>EC# (EINECS#)</b> 201-291-9  <b>Standard</b> LY/T 1183-95  <b>IMCO Class</b> 3.3
<b>Storage (Flash Point 33 deg C)</b> In cool place, avoid fire and high temperature.		

## BETA PINENE

### Property & Usage

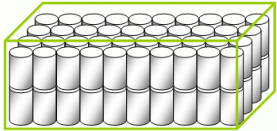

**SumFlu™ Beta Pinene** is obtained from distilling gum turpentine. It has an active property because of its double carbolic key and carbolic ring.

Usage in synthesis perfume.

### Technical Data Sheet

BETA PINENE	95%
Appearance	clear transparent liquid
Color (Pt-Co method)	35 max.
Specific gravity (d 20/4)	0.860 - 0.870
Refractive index (n 20/D)	1.4750 - 1.4820
Acid value (mgKOH/g)	0.5 max.
Moisture	0.1% max.
Purity (GC analysis)	95% min.

### Package & Note

<b>Package</b> 190kg net galvanized iron drum 175kg net galvanized iron drum 150kg net galvanized iron drum 20' ISO tank container	<b>20'FCL load</b> 15.2mt (80drums) 14mt (80drums) 18mt (120drums) 20mt about	
<b>Structural - C<sub>10</sub>H<sub>16</sub></b>  	<b>CAS Number</b> 127-91-3  <b>HS Code</b> 29021990  <b>UN NO.</b> 2319	<b>EC# (EINECS#)</b> 204-872-5  <b>Standard</b> LY/T 1182-95  <b>IMCO Class</b> 3.3
<b>Storage (Flash Point 32 deg C)</b> In cool place, avoid fire and high temperature.		

# PINANE

## Property & Usage

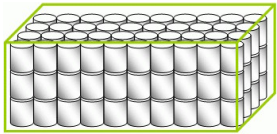

**SumFlu™ Pinane** is obtained by chemical reaction from alpha pinene.

Usage as intermediate for vitamin A, vitamin E, vitamin K production and aromatic chemicals.

## Technical Data Sheet

PINANE	98%
Appearance	colorless transparent liquid
Purity (GLC)	98% min.
Cis-isomer : tran-isomer	95 : 5 min.
Refractive index (n 20/D)	1.4570 - 1.4670
Specific gravity (d 20/4)	0.849 - 0.959

## Package & Note

<b>Package</b> 190kg net galvanized iron drum 175kg net galvanized iron drum 150kg net galvanized iron drum 20' ISO tank container	<b>20'FCL load</b> 15.2mt (80drums) 14mt (80drums) 18mt (120drums) 20mt about	
<b>Structural - C<sub>10</sub>H<sub>18</sub></b>  	<b>CAS Number</b> 6876-13-7  <b>HS Code</b> 29021990  <b>UN NO.</b> n/a	<b>EC# (EINECS#)</b> 229-978-9  <b>Standard</b> industry standard  <b>IMCO Class</b> 3.3
<b>Storage (Flash Point 38 deg C)</b> In cool place, avoid fire and high temperature.		

# CAMPHENE

## Property & Usage

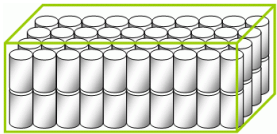
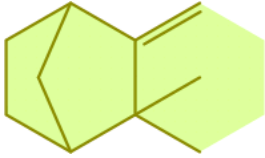
**SumFlu™ Camphene** is an isomeric result of pinene, a kind of terpene, appears white wax-like solid in normal temperature. Practically insoluble in water, Moderately soluble in alcohol, soluble in ether, cyclohexane, dioxane, chloroform. It will volatilize when exposed to air.

Usage widely in perfumery and make agriculture chemical and camphor.

## Technical Data Sheet

CAMPHENE	95%
Appearance	white crystal solid
Content (GC)	95% min.
Freezing point (deg C)	40 min.
<i>*Typical content:</i>	Camphene 80% + Tricyclene 15%
	Camphene 90% + Tricyclene 5%

## Package & Notes

<b>Package</b> 190kg net galvanized iron drum 175kg net galvanized iron drum 150kg net galvanized iron drum	<b>20'FCL load</b> 15.2mt (80drums) 14mt (80drums) 18mt (120drums)	
<b>Structural - C<sub>10</sub>H<sub>16</sub></b>  	<b>CAS Number</b> 79-92-5  <b>HS Code</b> 29021990  <b>UN NO.</b> 1325	<b>EC# (EINECS#)</b> 201-234-8  <b>Standard</b> industry standard  <b>IMCO Class</b> 4.1
	<b>Storage (Flash Point 70 deg C)</b> In cool place, avoid fire and high temperature.	

## CAMPHOR POWDER

### Property & Usage

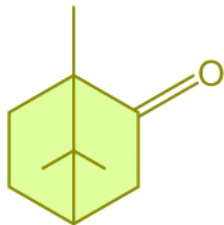
**SumFlu™ Camphor Powder** is made from gum turpentine and synthesized by series of chemical reaction and processing. It is a kind of terpene-ketone compound, which chemical name is synthetic camphor-2.

Usage in plastic industry and medicine.

### Technical Data Sheet

CAMPHOR POWDER	DAB6 GRADE	DAB8 GRADE
Content	96% min.	96% - 101%
Appearance	white crystal powder	white crystal powder
Melting point (deg C)	170 min.	174 - 179
Non-volatile residue	-	0.1% max.
Specific rotation	-2 to +5	-
Halogens (in chlorine)	355ppm max.	-

### Package & Note

<b>Package</b> 25kg net carton	<b>20'FCL load</b> 15mt (600cartons)	<b>20'FCL palletized</b> 13mt (520cartons)
<b>Structural - C<sub>10</sub>H<sub>16</sub>O</b>	<b>CAS Number</b> 76-22-2	<b>EC# (EINECS#)</b> 200-945-0
	<b>HS Code</b> 29142100	<b>Standard</b> GB/T 4895-91
	<b>UN NO.</b> 2717	<b>IMCO Class</b> 4.1
	<b>Storage (Flash Point 64 deg C)</b> In cool place, avoid fire and high temperature.	

## BORNEOL

### Property & Usage

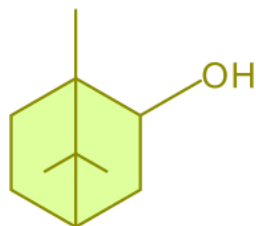
**SumFlu™ Borneol** is made from gum turpentine. It is a fragrant colorless transparent or white semi-transparent crisp crystalline schist. It's volatile and dissolves easy in organics solvent such as ethanol, ether, gasoline etc. but not in water.

Usage widely in daily chemical, pharmacy, flavor and perfume.

### Technical Data Sheet

<b>BORNEOL</b>	<b>55%</b>
Content	55% min.
Non-volatile matter	0.035% max.
Melting point (deg C)	205 - 210
Boiling Point (deg C)	210 - 220
Specific gravity	1.02
pH value	6.3 - 8.3
Moisture	clear (10ml petroleum ether/g)
Arsenic Salt (ppm)	2 max.
Heavy metal (ppm)	5 max.

### Package & Notes

<b>Package</b> 25kg net paper board barrel	<b>20'FCL load</b> 10mt (400drums)	<b>20'FCL palletized</b> 8mt (320drums)
<b>Structural - C<sub>10</sub>H<sub>17</sub>OH</b>	<b>CAS Number</b> 507-70-0	<b>EC# (EINECS#)</b> 208-080-0
	<b>HS Code</b> 29061990.90	<b>Standard</b> CP2005
	<b>UN NO.</b> 1312	<b>IMCO Class</b> 4.1
<b>Storage (Flash Point 65 deg C)</b> In cool place, avoid fire and high temperature.		

## ISOBORNYL ACETATE

### Property & Usage

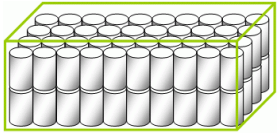
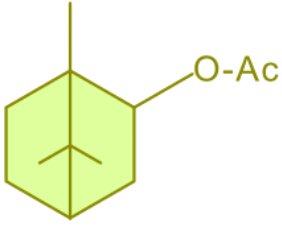
**SumFlu™ Isobornyl Acetate** is obtained from turpentine by chemical process such as distillation, isomerization and esterification. It is colorless or slightly yellowish transparent oil-shape liquid, having slight perfume.

Usage as basic materials of camphor, isoborneol and synthetic perfume.

### Technical Data Sheet

ISOBORNYL ACETATE	95%
Color	colorless or slight-yellowish transparent liquid
Purity	95% min.
Specific gravity (d 20/4 deg C)	0.970 - 0.990
Dioptré (n 20/d)	1.4650 - 1.4680
Distillation range (220-235 deg C)	95% min.
Free acid (mg/g)	0.5 max.

### Package & Notes

<b>Package</b> 190kg net galvanized iron drum 210kg net galvanized iron drum	<b>20'FCL load</b> 15.2mt (80drums) 16.8mt (80drums)	
<b>Structural - C<sub>10</sub>H<sub>17</sub>OOCCH<sub>3</sub></b> 	<b>CAS Number</b> 125-12-2  <b>HS Code</b> 29153900.90	<b>EC# (EINECS#)</b> 204-727-6  <b>Standard</b> industry standard
<b>Storage (Flash Point 71 deg C)</b> In cool place, avoid fire and high temperature.		

# LINALOOL

## Property & Usage

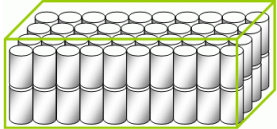
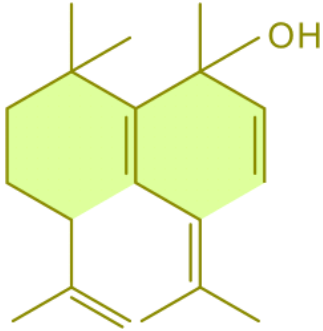
**SumFlu™ Linalool** is made from alpha pinene via chemical reactions.

Usage widely in perfumery applications including fine cosmetics, food, soaps & detergents and also for making Vitamin E & geraniol.

## Technical Data Sheet

LINALOOL	95%
Appearance	clear transparent liquid
Content (GLC)	95% min.
Specific gravity (d 20/4)	0.862 - 0.866
Refractive index (n 20/D)	1.4610 - 1.4650
Solubility (60% alcohol, V/V)	1 : 4

## Package & Notes

<b>Package</b> 175kg net galvanized iron drum 190kg net galvanized iron drum	<b>20'FCL load</b> 14mt (80drums) 14mt (80drums)	
<b>Structural - C<sub>10</sub>H<sub>18</sub>O</b> 	<b>CAS Number</b> 78-70-6  <b>HS Code</b> 29052230	<b>EC# (EINECS#)</b> 201-134-4  <b>Standard</b> industry standard
	<b>Storage</b> In cool place, avoid fire and high temperature.	

## ISOBORNEOL

### Property & Usage

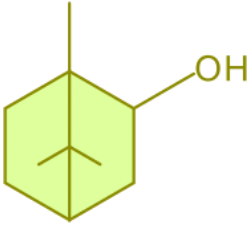
**SumFlu™ Isoborneol** is made from gum turpentine and also named as also named exo-borneol or isocamphol. It is a white crystal substance and has a equivalent character & odor to camphor. It's soluble in ethanol, ether, chloroform, toluene but not in water.

Usage in pharmacy, perfumery industry, daily chemical, etc.

### Technical Data Sheet

ISOBORNEOL	EXPORT GRADE
Appearance & Color	white or yellowish crystal powder
Purity (GC analysis)	82% min.
Moisture content	2% max.
Impurity content	0.5% max.
Melting point ( deg C)	202 min.

### Package & Notes

<b>Package</b> 25kg net in kraft polybag/plastic bag	<b>20'FCL load</b> 16mt (640bags)	<b>20'FCL palletized</b> 15mt (600bags)
<b>Structural - C<sub>10</sub>H<sub>17</sub>OH</b>	<b>CAS Number</b> 124-76-5	<b>EC# (EINECS#)</b> 204-712-4
	<b>HS Code</b> 29061990.90	<b>Standard</b> industry standard
	<b>UN NO.</b> 1312	<b>IMCO Class</b> 4.1
<b>Storage (Flash Point 65 deg C)</b> In cool place, avoid fire and high temperature.		

## P-MENTHANE

### Property & Usage


SumFlu™ *p*-Menthane (*para*-Menthane) is made by hydrogenation from dipentene.

Used as the basic material for menthane hydroperoxide, intermediate for fragrance & flavor, catalyst for ABS resin, solvents, etc.

### Technical Data Sheet

P-MENTHANE	EXPORT GRADE
Appearance	colorless transparent liquid
Specific gravity (d 20/4)	0.790 - 0.810
Refractive index (n 20)	1.4370 - 1.4500
<i>p</i> -Cymene content	0.5% max.
Purity (GC analysis)	95-97% min.

### Package & Notes

<b>Package</b> 165kg net in galvanized iron drum	<b>20'FCL load</b> 13.2mt (80drums)	<b>20'FCL palletized</b> 13.2mt (80drums)
<b>Structural - C<sub>10</sub>H<sub>20</sub></b> 	<b>CAS Number</b> 99-82-1	<b>EC# (EINECS#)</b> 202-790-4
	<b>HS Code</b> 29021990.90	<b>Standard</b> industry standard
	<b>UN NO.</b> 2319	<b>IMCO Class</b> 3.3
	<b>Storage (Flash Point 55 deg C)</b> In cool place, avoid fire and high temperature.	

## P-CYMENE

### Property & Usage

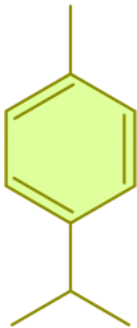
**SumFlu™ p-Cymene (para-Cymene)** is made by isomerization from high-quality turpentine or dipentene. It has a particular carrot or lemon-like odor and is soluble in alcohol & ether but not in water.

Usage as important raw material for fragrance, cosmetics, perfumery, detergent, soap, daily chemicals, pesticide, medicine, synthetic material, etc.

### Technical Data Sheet

P-CYMENE	EXPORT GRADE
Appearance	colorless to yellowish transparent liquid
Specific gravity (d 20/4)	0.850 - 0.868
Refractive index (n 20)	1.4900 - 1.5000
Purity (GC analysis)	95-97% min.

### Package & Notes

<b>Package</b> 175kg net in galvanized iron drum	<b>20'FCL load</b> 14mt (80drums)	<b>20'FCL palletized</b> 14mt (80drums)
<b>Structural - C<sub>10</sub>H<sub>14</sub></b>  	<b>CAS Number</b> 99-87-6	<b>EC# (EINECS#)</b> 202-796-7
	<b>HS Code</b> 29021990.90	<b>Standard</b> industry standard
	<b>UN NO.</b> 2046	<b>IMCO Class</b> 3.3
	<b>Storage (Flash Point 47 deg C)</b> In cool place, avoid fire and high temperature.	

## PINE OIL

### Property & Usage

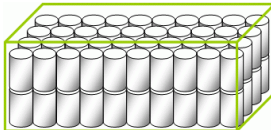
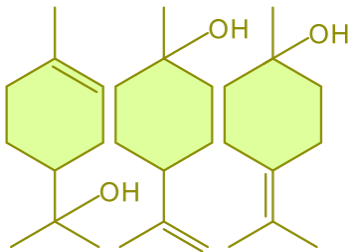
**SumFlu™ Pine Oil** is the by-product of producing terpineol from gum turpentine. It has a strong sterilizing effect and superior ability of deodorization, wetness, clearance and penetration.

Usage in daily life washing agent, disinfectant, detergent, metal polishing agent, anti-rust agent, painting solvent and mineral floating agent.

### Technical Data Sheet

PINE OIL	50%	65%	85%
Alcohol content (chemical method: phosphoric acid dehydration)	50% min.	65% min.	85% min.
Appearance	transparent liquid	transparent liquid	transparent liquid
Color (Specie Number)	6 max.	6 max.	6 max.
Moisture	1% max.	1% max.	1% max.
Specific gravity (20 deg C)	0.866 min.	0.900 min.	0.920 min.
Distillation range (V/V, deg C)	95% min. (168-230 C)	90% min. (170-225 C)	90% min. (190-225 C)

### Package & Note

<b>Package</b> 200kg net galvanized iron drum 180kg net galvanized iron drum 150kg net galvanized iron drum	<b>20'FCL load</b> 16mt (80drums) 14.4mt (80drums) 18mt (120drums)	
<b>Structural - C<sub>10</sub>H<sub>18</sub>O</b> 	<b>CAS Number</b> 8002-09-3  <b>HS Code</b> 38059010  <b>UN NO.</b> 1272	<b>EC# (EINECS#)</b> 304-455-9  <b>Standard</b> GXCIQ78-2001  <b>IMCO Class</b> 3.3
<b>Storage (Flash Point 73-86 deg C)</b> In cool place, avoid fire and high temperature.		

# TERPINEOL

## Property & Usage

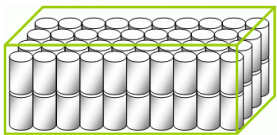
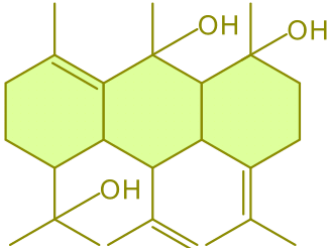
**SumFlu™ Terpeneol** is made from gum turpentine by hydration reaction via single standard processing or double refined processing method. It is a colorless transparent and thick fluid with pleasant lilac odor.

Usage in cosmetics, essences, soap, daily chemical products, medicine, printing ink, instrument & pigment solvent and other chemical industry widely.

## Technical Data Sheet

TERPINEOL	MU GRADE (Standard/Refined)	PG GRADE (Standard/Refined)
Appearance	colorless & thick liquid (appearing crystal)	colorless & thick liquid (appearing crystal)
Color (Specie number)	3 max.	3 max.
Odor	lilac-like sweet smell	lilac-like sweet smell
Relative density (g/ml, 20 deg C)	0.931 - 0.935	0.930 - 0.936
Diopre (20 deg C)	1.4825 - 1.4855	1.4825 - 1.4850
Boiling range (V/V)	4% max. (below 214 deg C)	90% min. (any 5 in 214-224 deg C)
Solubility (25 deg C)	1 ml terpeneol in 2ml 70% alcohol	1 ml terpeneol in 8ml or more 50% alcohol

## Package & Note

<b>Package</b> 200kg net galvanized iron drum 185kg net galvanized iron drum 155kg net galvanized iron drum	<b>20'FCL load</b> 16mt (80drums) 14.8mt (80drums) 18.6mt (120drums)	
<b>Structural - C<sub>10</sub>H<sub>18</sub>O</b> 	<b>CAS Number</b> 8000-41-7/98-55-5  <b>HS Code</b> 29061910	<b>EC# (EINECS#)</b> 232-268-1  <b>Standard</b> QB/T 2617-2003
<b>Storage (Flash Point 91 deg C)</b> In cool place, avoid fire and high temperature.		

## ALPHA TERPINEOL

### Property & Usage

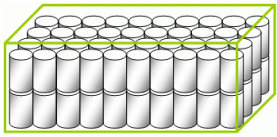
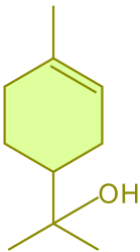
**SumFlu™ Alpha terpineol** is a kind of terpene alcohol of mixed of isomeric terpineol, obtained by dehydration of terpine hydrate. It is composed predominantly of alpha terpineol, which is the only fragrant substance in the isomers, with lesser amounts of gamma, beta and delta terpineol. At normal temperatures, it is a water white, oily liquid or crystalline with a pleasant floral odor. Its excellent solvency and surface active properties accounts for its usefulness to many fields and industry.

Usage in the manufacturing disinfectants, household and industrial soaps, detergents, cleaners and other chemical specialties.

### Technical Data Sheet

ALPHA TERPINEOL	98%
Appearance	colorless thick liquid or white crystalline material
Dioptré (20 deg C)	1.4800 - 1.4860
Specific gravity (20 deg C)	0.930 - 0.936
Moisture	0.6% max.
Total alcohols content (GC)	98% min.
<b>Typical value:</b>	
Alpha terpineol content	75% about
Beta terpineol content	5% about
Gamma terpineol content	15% about

### Package & Note

<b>Package</b> 185kg net galvanized iron drum 200kg net galvanized iron drum	<b>20'FCL load</b> 14.8mt (80drums) 16mt (80drums)	
<b>Structural - C<sub>10</sub>H<sub>18</sub>O</b> 	<b>CAS Number</b> 10482-56-1  <b>HS Code</b> 29061910	<b>EC# (EINECS#)</b> 233-986-8  <b>Standard</b> industry standard
<b>Storage (Flash Point 91 deg C)</b> In cool place, avoid fire and high temperature.		

# TERPINOLENE

## Property & Usage

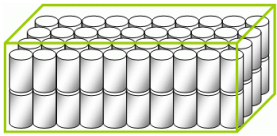

**SumFlu™ Terpinolene** is a mixture of terpene isomer composed from gum turpentine with smell of pine fragrance.

Usage widely in synthetic perfume industry.

## Technical Data Sheet

TERPINOLENE	30%, 60%, 90%
Appearance	colorless or yellowish transparent oil-shaped liquid
Purity (GLC)	30%, 60%, 90% min.
Dioptré (n 20/D)	1.460 - 1.490
Specific gravity (d 20/4)	0.85 - 0.88

## Package & Note

<b>Package</b> 175kg net galvanized iron drum 190kg net galvanized iron drum 150kg net galvanized iron drum	<b>20'FCL load</b> 14mt (80drums) 15.2mt (80drums) 18mt (120drums)	
<b>Structural - C<sub>10</sub>H<sub>16</sub></b> 	<b>CAS Number</b> 586-62-9  <b>HS Code</b> 29021990  <b>UN NO.</b> 2541	<b>EC# (EINECS#)</b> 209-578-0  <b>Standard</b> industry standard  <b>IMCO Class</b> 3.3
<b>Storage (Flash Point 66 deg C)</b> In cool place, avoid fire and high temperature.		

## GAMMA TERPINENE

### Property & Usage

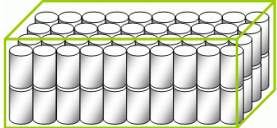
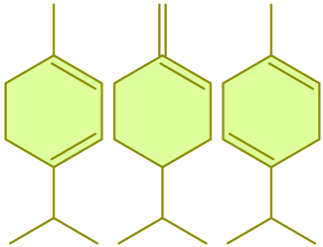
SumFlu™ Gamma Terpinene is made from a series of chemical procedures.

Usage in first-grade perfume compound.

### Technical Data Sheet

GAMMA TERPINENE	90%
Appearance	yellowish transparent liquid
Odor	orange-like, lemon-like
Content (GLC)	90% min.
Refractive index (NaD 20 deg C)	1.465 - 1.475
Relative gravity (D 20/4)	0.872 - 0.883

### Package & Notes

<b>Package</b> 175kg net galvanized iron drum 190kg net galvanized iron drum 150kg net galvanized iron drum	<b>20'FCL load</b> 14mt (80drums) 15.2mt (80drums) 18mt (120drums)	
<b>Structural - C<sub>10</sub>H<sub>16</sub></b> 	<b>CAS Number</b> 99-85-4  <b>HS Code</b> 29021990  <b>UN NO.</b> 2541	<b>EC# (EINECS#)</b> 202-794-6  <b>Standard</b> industry standard  <b>IMCO Class</b> 3.3
<b>Storage (Flash Point 66 deg C)</b> In cool place, avoid fire and high temperature.		

## TERPINYL ACETATE

### Property & Usage

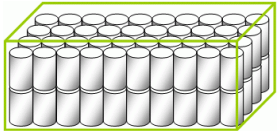
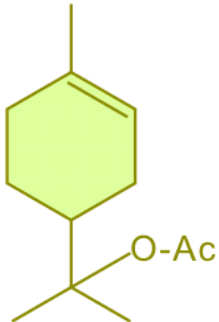
**SumFlu™ Terpinyl Acetate** is made from esterification of acetic acid and terpineol together with the oil of vitriol, and with following neutralization, cleanse and rectification. Soluble in oil and alcohol but not in water, is with slight sweet smell like as lavender and chayote.

Usage in concocting lavender, lemon, orange, etc, as indoor aromatic agent or detergent, a substitute of linalool.

### Technical Data Sheet

TERPINYL ACETATE	95%	98%
Appearance	colorless to slight yellowish clear liquid	colorless to slight yellowish clear liquid
Odor	citrus-like, lavender-like	citrus-like, lavender-like
Acetate content (chemical method)	95% min.	98% min.
Refractive index (20 deg C)	1.4640 - 1.4670	1.4640 - 1.4670
Relative gravity (25 deg C)	0.9520 - 0.9620	0.9520 - 0.9620
Acid value (mgKOH/g)	1.0 max.	1.0 max.

### Package & Notes

<b>Package</b> 185kg net galvanized iron drum	<b>20'FCL load</b> 14.8mt (80drums)	
<b>Structural - C<sub>12</sub>H<sub>20</sub>O<sub>2</sub></b> 	<b>CAS Number</b> 80-26-2	<b>EC# (EINECS#)</b> 201-265-7
	<b>HS Code</b> 29153900.90	<b>Standard</b> industry standard
	<b>Storage (Flash Point 85 deg C)</b> In cool place, avoid fire and high temperature.	

## DIHYDRO TERPINEOL

### Property & Usage

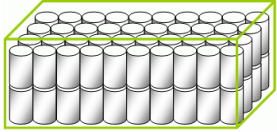
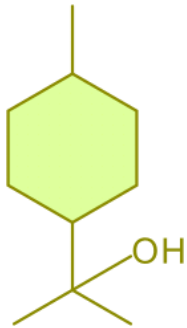
**SumFlu™ Dihydro Terpeneol** is made from terpineol by hydrogenation under high pressure. It has an elegant lilac-like smell and stable chemical activity even at high temperature.

Usage in top grade of perfume, cosmetics, medicine & chemical industry (hydrogen peroxide).

### Technical Data Sheet

DIHYDRO TERPINEOL	90%	95%
Appearance	clear colorless liquid	clear colorless liquid
Odor	lilac-like smell	lilac-like smell
Content (GC)	90% min.	95% min.
Relative gravity (D 20/4)	0.900 - 0.912	0.900 - 0.912
Bromine value	2 max.	2 max.

### Package & Notes

<b>Package</b> 185kg net galvanized iron drum	<b>20'FCL load</b> 14.8mt (80drums)	
<b>Structural - C<sub>10</sub>H<sub>20</sub>O</b> 	<b>CAS Number</b> 498-81-7/58985-02-7	<b>EC# (EINECS#)</b> unspecified
	<b>HS Code</b> 29061910	<b>Standard</b> industry standard
	<b>Storage (Flash Point 94 deg C)</b> In cool place, avoid fire and high temperature.	

## TUNG OIL

### Property & Usage

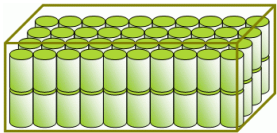
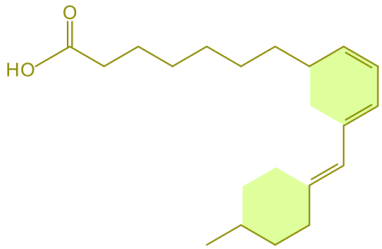
**SumTac™ Tung Oil** is natural plant oil is pressed & extracted from the seeds of tung tree at the oil mill. It consists primarily of the glycerides of the fatty acids linoleic acid and oleic acid. As Chinese traditional export item, it's also named as China wood oil. Tung oil is a kind of superior drying oil and features fast volatility & drying, high gloss, strong adhesion, good resistance to heat, acid, alkali, rot & rust, non-conductive electricity, etc.

Usage as basic important raw material in raw lacquer, varnish, paint, PCB(Printed Circuit Board) & CCL (Copper Clad Laminate), alkyd resin, etc.

### Technical Data Sheet

TUNG OIL	EXPORT GRADE
Appearance	transparent or slightly turbid
Color	not darker than a freshly prepared solution containing 0.4gm potassium dichromate in 100ml of sulphuric acid (s.g. 1.84).
Specific gravity (20 deg C/4 deg C)	0.9360 - 0.9395
Refractive index (20 deg C)	1.517 - 1.522
Iodine value	163 - 173
Saponification value	190 - 195
Moisture & impurities	0.3% max.
Free fatty acid (FFA)	4% max.
Worstall's heat test	7.5 minutes max.
Beta tung oil test	negative (no crystalline precipitate)
* Color in accordance with Gardner no. 8 max available.	

### Package & Notes

<b>Package</b> 190kg net iron drum	<b>20'FCL load</b> 15.2mt (80drums)	
<b>Structural -</b> $(C_{17}H_{29}COO)_3C_3H_5$	<b>CAS Number</b> 8001-20-5	<b>EC# (EINECS#)</b> 232-272-3
	<b>HS Code</b> 15159030	<b>Standard</b> GB 8277-87
	<b>Storage</b> In cool place, avoid fire and high temperature.	



## PHENOL FORMALDEHYDE RESIN

### Property & Usage

**SumTac™ Phenol Formaldehyde Resin** is irregular transparent solid and soluble in ester, gum turpentine, gasoline solvent, dry oil, etc. It's made from condensation of p-tertiary butyl phenol (p-t-butyl phenol) and formaldehyde under catalysis of calcium hydroxide, also named as Alkyl-Phenol Formaldehyde Resin. Due to its reactive methylol groups, it's most widely used in making polychloroprene contact cements that exhibit long open times and metal coatings. It's soluble in aromatic or aliphatic hydrocarbons, esters, ketones, partially in higher alcohols and completely compatible with nitrile and polychloroprene rubbers. It has a compatibility limit of about 25 in combination with 100 parts by weight of SBR, natural, and reclaimed rubbers.

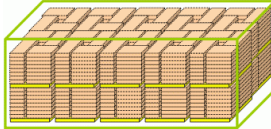
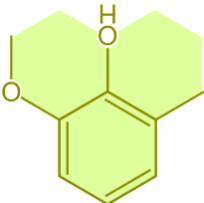
Usage in high quality paint, coating and adhesive agent & vulcanized agent of rubber products. It's extensively employed in the preparation of general purpose and heat-activating polychloroprene cements. It can also be used in formulating adhesives with NBR, SBR, natural and reclaimed rubbers.

### Technical Data Sheet

#### PHENOL FORMALDEHYDE RESIN F7522

Appearance	clear yellowish solid (irregular pieces)
Color (Gardner)	5 - 8
Softening point (R&B, deg C)	85 - 115
Hydroxymethylate content	9 - 15%
Free phenol content	1.5% max.
Free aldehyde content	0.5% max.

### Package & Notice

<b>Package</b> 25kg net kraft polybag 25kg net kraft polybag	<b>20'FCL load</b> 18mt (720bags) 16mt (640bags)-pallet	
<b>Structural - (C<sub>10</sub>H<sub>14</sub>O·CH<sub>2</sub>O)<sub>x</sub></b> 	<b>CAS Number</b> 9003-35-4/25085-50-1	
	<b>HS Code</b> 39094000	<b>Standard</b> industry standard
	<b>Storage</b> In cool place, avoid fire and high temperature.	



## POLYTERPENE RESIN

### Property & Usage

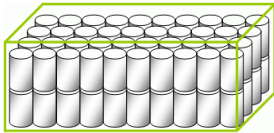
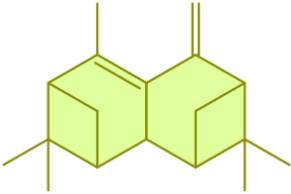
**SumTac™ Polyterpene Resin** is a pale, inert, low molecular weight resin, which is made from polymerization of pinene. It's well compatible with rubber, SIS, SBS and EVA for its good coldness resistance and easy emulsifying, and it's stable against oxygen, heat, light, radiation and crystallizing. It dissolves in turpentine, benzene, toluene, gasoline but not in water, methanol and alcohol.

Usage in film coating adhesive, protective film and hot-melt adhesive.

### Technical Data Sheet

POLYTERPENE RESIN	S10	S25
Appearance	amber viscous liquid	amber viscous liquid
Color (Gardner)	5 - 7	5 - 7
Softening point (R&B, deg C)	10 +/- 5	25 +/- 5
Acid value (mgKOH/g)	1 max.	1 max.
		(*reference only, not for test)

### Package & Notes

<b>Package</b> 200kg net galvanized iron drum 180kg net galvanized iron drum	<b>20'FCL load</b> 16mt (80drums) 14.4mt (80drums)	
<b>Structural - (C<sub>10</sub>H<sub>16</sub>·C<sub>10</sub>H<sub>16</sub>)<sub>x</sub></b> 	<b>CAS Number</b> 31393-98-3  <b>HS Code</b> 39111000  <b>Storage</b> In cool place, avoid fire and high temperature.	<b>EC# (EINECS#)</b> polymer  <b>Standard</b> industry standard

## HYDROCARBON RESIN

### Property & Usage

**SumTac™ Hydrocarbon Resin** is made from petroleum based fractions including aliphatic (C5), aromatic (C9) & DCPD (dicyclopentadiene), or mixtures of these (copolymer). There are two basic categories of hydrocarbon tackifier resins and also name as petroleum resin.

C5 is so named because they are generally polymers of monomers with five carbons. Basic C5 aliphatic resins have Gardner colors between 2 and 7 (from light yellow to light brown) and are mostly used to tackify aliphatic polymers, especially natural rubber, EVA, SIS and APO. It's used mainly in rubber, tyre, road marking paint, hot-melt & PSA adhesive, etc.

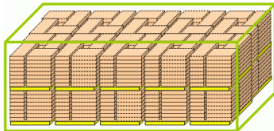
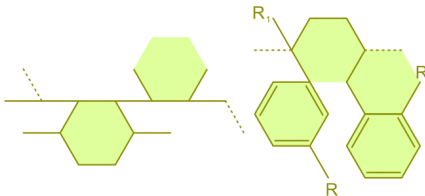
C9 is so named because they are generally polymers of nine-carbon aromatic monomers. It's based on aromatic fractions that undergo very little refining prior to the polymerization of the resin. It's typical Gardner color from 7 to 12 (dark yellow to dark brown). It's used mainly in EVA-based adhesives, contact adhesive for footwear, printing inks, sealants, and paints.

C5/C9 copolymer is mixture of C5 & C9 resin and suitable for rubber & radial tyre.

### Technical Data Sheet

HYDROCARBON RESIN	C5	C9	COPOLYMER
Appearance	granular	granular/piece	granular
Color (Gardner)	5 max.	9 max.	13 max.
Softening point (R&B, deg C)	100 +/- 5	115 +/- 5	105 +/- 5
Acid value (mgKOH/g)	1 max.	1 max.	1 max.
Ash content (%)	0.1% max.	0.1% max.	0.1% max.

### Package & Notes

<b>Package</b> 25kg net kraft polybag 25kg net kraft polybag	<b>20'FCL load</b> 18mt (720bags) 16mt (720bags)-pallet	
<b>Structural - C<sub>5</sub>H<sub>8</sub></b> 	<b>CAS Number</b> 64742-16-1/68131-77-1	<b>EC# (EINECS#)</b> 265-116-8
	<b>HS Code</b> 39111000	<b>Standard</b> industry standard
	<b>Storage</b> In cool place, avoid fire and high temperature.	



## RESIN DISPERSION

### Property & Usage

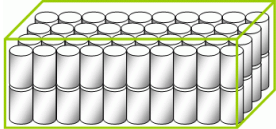
**SumTac™ Rosin & Resin Dispersion** is a kind of rich-solid-content water-borne emulsion, made from gum rosin, rosin derivatives or petroleum resin together with macromolecule surface active agent via emulsification of EIP method. It's a green and environment-friendly water-based emulsion with apparent tackifying performance and extensive compatibility. It's compatible with acrylate, VAE, SBR, CR, NBR, NR and EVA copolymer and suitable for non-solvent-type adhesives & tackifiers. Most of its average grain-size is up to 200nm (0.2um).

Usage mainly in PSA adhesive like tapes & labels (high tack & peel, good UV & aging stability, anti-low temperature, etc.), tectorial adhesive, static floss-weaving adhesive and white latex and many other coating materials for construction. It is with superior thermo-resistance bonding ability, superior transparency and better bonding effect with alkyl dilution.

### Technical Data Sheet

RESIN DISPERSION	EMU-AA	EMU-AT	EMU-AW
Base Resin (Tg/S.P., deg C)	+35/+65 about	-25/+25 about	+33/+80 about
Appearance	white latex	white latex	white latex
Solid content	50 +/- 2%	55 +/- 5%	60 +/- 2%
pH value (25 deg C)	6.5 - 8.5	6.5 - 8.5	6.5 - 8.5
Viscosity (CP/mPa.s)	200-1200 about	300-3000 about	1500-5000 about
Average grain-size (nm)	200 max.	200 max.	600 max.
Ion type	Anionic	Anionic	Anionic

### Package & Notes

<b>Package</b> 200kg net plastic drum 1000L IBC	<b>20'FCL load</b> 16mt (80drums) 17.1mt (18IBCs)	
<b>Structural</b> -macromolecule polymer n/a	<b>CAS Number</b> n/a	<b>EC# (EINECS#)</b> polymer
	<b>HS Code</b> 38062090	<b>Standard</b> Eastman Tacolyn-3179
	<b>Storage</b> In cool place, avoid fire and high temperature.	



## STYRENATED TERPENE RESIN

### Property & Usage

**SumTac™ Styrenated-terpene Resin** is a light color, low odor, and heat stable modified terpene resin, made from turpentine and styrene, with polymerized by mandrax-Clinton (Friedel-Crafts) and then proceeded via hydrolysis, washing, filtering and distillation.

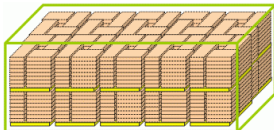
This light colored, low odor resin is the right choice for premium hot melt adhesive applications. The aliphatic-aromatic nature of these resins gives them excellent adhesion to a range of substrates including polyolefins. Styrenated terpenes are highly compatible in EVA (Ethylene co-terpolymers: EVA, EMA) and SBC (Styrene block copolymers: SIS, SBS, SEBS) systems and easily solved in all kinds of elastomeric polymer like styrene-butadiene block copolymer, natural rubber and styrene-butadiene rubber.

Usage for assembly and packaging, non-woven, bookbinding and pressure sensitive adhesives for tape, label and decal applications. Provides a very good balance of properties when compounded with styrenic block copolymers or ethylene vinyl acetate copolymers. As a kind of pale and white tackifier, also widely used in top grade adhesive, coatings, print inks and rubber, children & woven health daily-uses, etc.

### Technical Data Sheet

STYRENATED TERPENE RESIN	ST80	ST100	ST120
Softening point (deg C)	80 +/- 3	100 +/- 3	120 +/- 3
Color (Gardner)	1 - 3	1 - 3	1 - 3
Acid value (mgKOH/g)	1 max.	1 max.	1 max.
Toluene-insoluble matter	0.05% max.	0.05% max.	0.05% max.

### Package & Notes

<b>Package</b> 25kg net polybag 25kg net polybag	<b>20'FCL load</b> 17.5mt(700bags) 16mt (640bags)-pallet	
<b>Structural-macromolecule polymer</b> n/a	<b>CAS Number</b> n/a	<b>EC# (EINECS#)</b> polymer
	<b>HS Code</b> 39111000	<b>Standard</b> industry standard
	<b>Storage</b> In cool place, avoid fire and high temperature.	



## PINE TAR OIL

### Property & Usage

**SumTac™ Pine Tar Oil** is a botanical product with special odor obtained from the destructive distillation of pine wood or stump. It is a complicate mixture of kinds of phenols, fatty acids, volatile oils, terpenoid, etc. and has particular chemical characters.

Usage as efficient softening solvent in rubber & tyre industry, as preservative in wooden or other construction & medicine, as water-proof agent in paint & coating application, etc. and also used in pitch industry & mineral flotation.

### Technical Data Sheet

PINE TAR OIL	EXPORT GRADE
Appearance & color	deep brown & viscous liquid
Viscosity S (100ml, 85 deg C)	150-250, 250-350, 350-450
Volatile content	6.5%, 6.0%, 5.5%
Specific gravity (D20/4)	0.96 - 1.06
Moisture content	0.5% max
Ash content	0.5% max
Mechanical Impurity content	0.3% max

### Package & Notice

<b>Package</b>	<b>20'FCL load</b>	<b>20'FCL palletized</b>
200kg net galvanized iron drum	18mt (80drums)	18mt (80drums)
25kg net carton	21mt (840cartons)	18mt (720cartons)
<b>HS CODE</b>	<b>CAS Number</b>	<b>EC# (EINECS)</b>
38070000	8011-48-1/91995-59-4	232-374-8/295-321-8
<b>UN No.</b>	<b>Storage (Flash Point 70-170 deg C)</b>	
1993	In cool place, avoid fire and high temperature.	



## APPLICATION GUIDE

Summit™ Product	Coating	Adhesive	Print/Ink	Rubber	Paper	Fragrance	Others
Gum rosin	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		synthesis pigment
Hydrogenated rosin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Disproportionated rosin		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			flux
Polymerized rosin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
Maleated rosin			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Disproportionated rosinate				<input checked="" type="checkbox"/>			plastics
Esterified rosin							synthesis
Refined gum rosin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		refined
Glycerol rosin ester		<input checked="" type="checkbox"/>					PSA
Pentaerythritol rosin ester		<input checked="" type="checkbox"/>					HMA
Maleic resin	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				
Road-marking-paint resin	<input checked="" type="checkbox"/>						
Rosin modified phenolic resin	<input checked="" type="checkbox"/>						offset
Terpene phenolic resin		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
Terpene resin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Methyl rosinate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					cosmetic
Hydrogenated rosin ester		<input checked="" type="checkbox"/>					
Ester gum		<input checked="" type="checkbox"/>					food
Gum turpentine	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	synthesis
Dipentene				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	detergent
Alpha pinene						<input checked="" type="checkbox"/>	synthesis
Beta pinene						<input checked="" type="checkbox"/>	
Pinane						<input checked="" type="checkbox"/>	synthesis
Camphene						<input checked="" type="checkbox"/>	agriculture
Camphor						<input checked="" type="checkbox"/>	plastics
Borneol						<input checked="" type="checkbox"/>	medicine
Isobornyl acetate						<input checked="" type="checkbox"/>	
Linalool						<input checked="" type="checkbox"/>	vitamin
Isoborneol						<input checked="" type="checkbox"/>	pharmacy
p-Menthane						<input checked="" type="checkbox"/>	synthesis
p-Cymene						<input checked="" type="checkbox"/>	medicine
Pine oil	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	flotation
Terpineol			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	medicine
Alpha terpineol						<input checked="" type="checkbox"/>	detergent
Terpinolene						<input checked="" type="checkbox"/>	
Gamma terpinene						<input checked="" type="checkbox"/>	
Terpinyl acetate						<input checked="" type="checkbox"/>	
Dihydro terpineol						<input checked="" type="checkbox"/>	
Tung oil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				PCB/CCL
Phenol formaldehyde resin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
Polyterpene resin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
Hydrocarbon resin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			tyre
Resin dispersion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Styrenated terpene resin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Pine tar oil				<input checked="" type="checkbox"/>			
<b>Summit™ Product</b>	<b>Coating</b>	<b>Adhesive</b>	<b>Print/Ink</b>	<b>Rubber</b>	<b>Paper</b>	<b>Perfume</b>	<b>Others</b>

 Applicable
