



Customer Information

## Leveling Agent for Reactive Dyes

Dyeing Auxiliary

### Interpol-MRV

Very good leveler for reactive dyes while dyeing on cellulosic fibres.

### Uses

Softens dye bath by sequestering metal ions and earth alkalis. Prevents quick exhaustion and improves uniform fixation of dyes during alkali addition by controlling quick rise of pH.

Improves the stability of dye liquors, i.e. enhances dispersion of dyestuffs and thus improves the levelness of dyeing. Dissolves and disperses impurities in the fibres. Foam –free.

### Characteristics

Sequesters metal ions and earth alkalis protects the formation of dye agglomeration offend forms, during the presence of high electrolytes in the dye bath at low temperatures. And it has the capacity to dissolve dye agglomerations again and improves uniform dyeing.

### Benefits

Improves evenness of dyeing. Regulates pH. Improves reproducibility by simplifying the dyeing process. Disperses sparing soluble calcium and magnesium salts. Improves dye bath stability. Promotes the best possible conditions for level dying. Has a "softening effect" on the dye bath. No shade change with dyes sensitive to iron and /or copper. Allows savings on machine cleaning. Not toxic or harmful to aquatic organisms.

## Properties

Chemical basis	: Mixture of an addition complexing agent and polymers.
Appearance	: Coffee Color, low-viscosity liquid.
pH	: About 7.0
Specific gravity at 20°C	: About 1.1
Ionic character	: Anionic
Suitable dilute	: Cold or warm water.
General stability	: Stable in hard water, Alkalis and acids.
Storage stability	: life time about 1 year under storage Condition of 0°C~30°C.
Application	: The following recommendation may treat As guide : 1~3 g/l.

**Caution** : **The usual hygiene and safety rules for handling chemicals Should be observed in storage and handling. The product Must not be swallowed.**



Customer Information

## **Leveling Agent for Reactive Dyes (Interpol-KRN)**

Dyeing Auxiliary

### **Interpol-KRN**

Very good leveler for reactive dyes while dyeing on cellulosic fibres.

### **Uses**

Softens dye bath by sequestering metal ions and earth alkalis. Prevents quick exhaustion and improves uniform fixation of dyes during alkali addition by controlling quick rise of pH. Improves the stability of dye liquors, i.e. enhances dispersion of dyestuffs and thus improves the levelness of dyeing. Dissolves and disperses impurities in the fibres. Foam -free

### **Characteristics**

Sequesters metal ions and earth alkalis protects the formation of dye agglomeration offend forms, during the presence of high electrolytes in the dye bath at low temperatures. And it has the capacity to dissolve dye agglomerations again and improves uniform dyeing.

### **Benefits**

Improves evenness of dyeing. Regulates ph. Improves reproducibility by simplifying the dyeing process. Disperses sparing soluble calcium and magnesium salts. Improves dye bath stability. Promotes the best possible conditions for level dying. Has a "softening effect" on the dyebath. No shade change with dyes sensitive to iron and /or copper. Allows savings on machine cleaning. Not toxic or harmful to aquatic organisms.

## **Properties**

Chemical basis	: Mixture of an addition complexing agent and polymers.
Appearance	: Light Coffee Color, low-viscosity liquid.
Specific gravity at 20°C	: About 1.1
pH	: Approximate 8
Ionic character	: Anionic
Suitable dilute	: Cold or warm water.
General stability	: Stable in hard water, Alkalis and acids.
Storage stability	: life time about 1 year under storage Condition of 0°C~30°C.
Application	: The following recommendation may treat As guide: 1~3 g/l.

**Caution** : **The usual hygiene and safety rules for handling chemicals Should be observed in storage and handling. The product Must not be swallowed .**



Customer Information

## Leveling Agent for Reactive Dyes

Dyeing Auxiliary

### **Interpol-DVRN**

Very good leveler for reactive dyes while dyeing on cellulosic fibres.

### **Uses**

Softens dye bath by sequestering metal ions and earth alkalis. Prevents quick exhaustion and improves uniform fixation of dyes during alkali addition by controlling quick rise of pH. Improves the stability of dye liquors, i.e. enhances dispersion of dyestuffs and thus improves the levelness of dyeing. Dissolves and disperses impurities in the fibres. Foam –free.

### **Characteristics**

Sequesters metal ions and earth alkalis protects the formation of dye agglomeration offend forms, during the presence of high electrolytes in the dye bath at low temperatures. And it has the capacity to dissolve dye agglomerations again and improves uniform dyeing.

### **Benefits**

Improves evenness of dyeing. Regulates ph. Improves reproducibility by simplifying the dyeing process. Disperses sparing soluble calcium and magnesium salts. Improves dye bath stability. Promotes the best possible conditions for level dying. Has a "softening effect" on the dye bath. No shade change with dyes sensitive to iron and /or copper. Allows savings on machine cleaning. Not toxic or harmful to aquatic organisms.

## Properties

Chemical basis	: Mixture of an addition complexing agent and polymers.
Appearance	: Coffee Color, low-viscosity liquid.
pH	: About 7.0
Specific gravity at 20°C	: About 1.1
Ionic character	: Anionic
Suitable dilute	: Cold or warm water.
General stability	: Stable in hard water, Alkalis and acids.
Storage stability	: life time about 1 year under storage Condition of 0°C~30°C.
Application	: The following recommendation may treat As guide : 1~3 g/l.

**Caution** : **The usual hygiene and safety rules for handling chemicals Should be observed in storage and handling. The product Must not be swallowed.**



Customer Information

## Leveling Agent for Reactive Dyes

Dyeing Auxiliary

### **Interpol-LA**

Very good leveler for reactive dyes while dyeing on cellulosic fibres.

### **Uses**

Softens dye bath by sequestering metal ions and earth alkalis. Prevents quick exhaustion and improves uniform fixation of dyes during alkali addition by controlling quick rise of pH. Improves the stability of dye liquors, i.e. enhances dispersion of dyestuffs and thus improves the levelness of dyeing. Dissolves and disperses impurities in the fibres. Foam –free.

### **Characteristics**

Sequesters metal ions and earth alkalis protects the formation of dye agglomeration offend forms, during the presence of high electrolytes in the dye bath at low temperatures. And it has the capacity to dissolve dye agglomerations again and improves uniform dyeing.

### **Benefits**

Improves evenness of dyeing. Regulates ph. Improves reproducibility by simplifying the dyeing process. Disperses sparing soluble calcium and magnesium salts. Improves dye bath stability. Promotes the best possible conditions for level dying. Has a "softening effect" on the dye bath. No shade change with dyes sensitive to iron and /or copper. Allows savings on machine cleaning. Not toxic or harmful to aquatic organisms.

## Properties

Chemical basis	: Mixture of an addition complexing agent and polymers.
Appearance	: Coffee Color, low-viscosity liquid.
pH	: About 7.0
Specific gravity at 20°C	: About 1.1
Ionic character	: Anionic
Suitable dilute	: Cold or warm water.
General stability	: Stable in hard water, Alkalis and acids.
Storage stability	: life time about 1 year under storage Condition of 0°C~30°C.
Application	: The following recommendation may treat As guide : 1~3 g/l.
<b>Caution</b>	<b>: The usual hygiene and safety rules for handling chemicals Should be observed in storage and handling. The product Must not be swallowed.</b>



Customer Information

## Detergent and wetting agent (Intermul-LFN-JET)

Dyeing Auxiliary

### **Intermul-LFN-Jet**

Excellent Detergent and wetting for all textile fibres and blends.

### **Uses**

It is used in wetting and de-aerating in scouring/washing, desizing, alkali boil-out, bleaching, dyeing and finishing baths.

### **Characteristics**

No troublesome foaming. Very good solubility. High stability to chemicals. Good degreasing action. Contains no APEO.

### **Benefits**

Very good rewetting properties of treated material. Outstanding wetting and de-aerating properties, including in cold liquors.

### **Properties**

Composition	: Mixture of surface-active compounds.
Appearance	: Clear, colorless, slightly viscous liquid.
PH	: 5.5
Specific Gravity at 20°C	: About 1 g/cm <sup>3</sup>
Ionic Character	: Nonionic
Suitable dilute	: Very stable in hard water and to salts, alkalis, acids and b leaching agents .10 g/l Intermul-LFN-Jet is stable to about 60 g/l caustic soda at 20°C and to about 50 g/l caustic soda at 90°C without precipitation. In sulfuric acid baths down to and Including pH 1 , no precipitation occurs.

**Application** : In padding liquors for grey goods :  
4~10 g/l Intermul-LFN-Jet  
Pretreated goods : 06 ~4 g/l  
In long liquors for grey goods :  
0.5~2 g/l Intermul -LFN -Jet  
Pretreated goods : 0.3~0.5g/l

**Caution** : Should be observed in storage, handling and use. The product  
Must not be swallowed. For further information, please see the  
Safety Data Sheet.

**Storage Stability** : **lifetime 1 year under storage temperature condition  
Of 0°C ~ 30° C**

Customer Information

## Detergent and wetting agent (Intermul-NUN)

Dyeing Auxiliary

### **Intermul-NUN**

Excellent Detergent and wetting for all textile fibres and blends.

### **Uses**

It is used in wetting and de-aerating in scouring/washing, desizing, alkali boil-out, bleaching, dyeing and finishing baths.

### **Characteristics**

No troublesome foaming. Very good solubility. High stability to chemicals. Good degreasing action. Contains no APEO.

### **Benefits**

Very good rewetting properties of treated material. Outstanding wetting and de-aerating properties, including in cold liquors.

### **Properties**

Composition	: Mixture of surface-active compounds.
Appearance	: Clear, colorless, slightly viscous liquid.
PH	: 5.5
Specific Gravity at 20°C	: About 1 g/cm <sup>3</sup>
Ionic Character	: Nonionic
Suitable dilute	: Very stable in hard water and to salts, alkalis, acids and b leaching agents .10 g/l Intermul-NUN is stable to about 60 g/l caustic soda at 20°C and to about 50 g/l caustic soda at 90°C without precipitation. In sulfuric acid baths down to and Including pH 1 , no precipitation occurs.

**Application** : In padding liquors for grey goods :  
4~10 g/l Intermul-NUN  
Pretreated goods : 06 ~4 g/l  
In long liquors for grey goods :  
0.5~2 g/l Intermul -NUN  
Pretreated goods : 0.3~0.5g/l

**Caution** : Should be observed in storage, handling and use. The product  
Must not be swallowed. For further information, please see the  
Safety Data Sheet.

**Storage Stability** : **lifetime 1 year under storage temperature condition  
Of 0°C ~ 30° C**



Customer Information

## Detergent and wetting agent (Intermul-ITL Jet)

Dyeing Auxiliary

### **Intermul-ITL Jet**

Excellent Detergent and wetting for all textile fibres and blends.

### **Uses**

It is used in wetting and de-aerating in scouring/washing, desizing, alkali boil-out, bleaching, dyeing and finishing baths.

### **Characteristics**

No troublesome foaming. Very good solubility. High stability to chemicals. Good degreasing action. Contains no APEO/NPEO.

### **Benefits**

Very good rewetting properties of treated material. Outstanding wetting and de-aerating properties, including in cold liquors.

### **Properties**

Composition	: Mixture of surface-active compounds.
Appearance	: Clear, colorless, slightly viscous liquid.
PH	: 5.5
Specific Gravity at 20°C	: About 1 g/cm <sup>3</sup>
Ionic Character	: Nonionic
Suitable dilute	: Very stable in hard water and to salts, alkalis, acids and b leaching agents .10 g/l Intermul-ITL Jet is stable to about 60 g/l caustic soda at 20°C and to about 50 g/l caustic soda at 90°C without precipitation. In sulfuric acid baths down to and Including pH 1 , no precipitation occurs.

**Application** : In padding liquors for grey goods :  
4~10 g/l Intermul-ITL-Jet  
Pretreated goods : 06 ~4 g/l  
In long liquors for grey goods :  
0.5~2 g/l Intermul -ITL-Jet  
Pretreated goods : 0.3~0.5g/l

**Caution** : Should be observed in storage, handling and use. The product  
Must not be swallowed. For further information, please see the  
Safety Data Sheet.

**Storage Stability** : **lifetime 1 year under storage temperature condition**  
**Of 0°C ~ 30° C**

Customer Information

## Detergent and wetting agent (Intermul-JKY)

Dyeing Auxiliary

### **Intermul-JKY**

Excellent Detergent and wetting for all textile fibres and blends.

### **Uses**

It is used in wetting and de-aerating in scouring/washing, desizing, alkali boil-out, bleaching, dyeing and finishing baths.

### **Characteristics**

No troublesome foaming. Very good solubility. High stability to chemicals. Good degreasing action. Contains no APEO/NPEO.

### **Benefits**

Very good rewetting properties of treated material. Outstanding wetting and de-aerating properties, including in cold liquors.

### **Properties**

Composition	: Mixture of surface-active compounds.
Appearance	: Clear, colorless, slightly viscous liquid.
PH	: 5.5
Specific Gravity at 20°C	: About 1 g/cm <sup>3</sup>
Ionic Character	: Nonionic
Suitable dilute	: Very stable in hard water and to salts, alkalis, acids and b leaching agents .10 g/l Intermul-JKY is stable to about 60 g/l caustic soda at 20°C and to about 50 g/l caustic soda at 90°C without precipitation. In sulfuric acid baths down to and Including pH 1 , no precipitation occurs.

- Application** : In padding liquors for grey goods :  
4~10 g/l Intermul-JKY  
Pretreated goods : 06 ~4 g/l  
In long liquors for grey goods :  
0.5~2 g/l Intermul -JKY  
Pretreated goods : 0.3~0.5g/l
- Caution** : Should be observed in storage, handling and use. The product  
Must not be swallowed. For further information, please see the  
Safety Data Sheet.
- Storage Stability** : **lifetime 1 year under storage temperature condition**  
**Of 0°C ~ 30° C**



Customer Information

## Detergent and wetting agent (Oil Spot Remover)

Dyeing Auxiliary

### **Intermul-SLX**

Excellent Detergent and wetting for all textile fibres and blends.

### **Uses**

It is used in wetting and de-aerating in scouring/washing, desizing, alkali boil-out, bleaching, dyeing and finishing baths.

### **Characteristics**

No troublesome foaming. Very good solubility. High stability to chemicals. Good degreasing action. Contains no APEO/NPEO.

### **Benefits**

Very good rewetting properties of treated material. Outstanding wetting and de-aerating properties, including in cold liquors.

### **Properties**

Composition	: Mixture of surface-active compounds.
Appearance	: Clear, colorless, slightly viscous liquid.
PH	: 5.5
Specific Gravity at 20°C	: About 1 g/cm <sup>3</sup>
Ionic Character	: Nonionic
Suitable dilute	: Very stable in hard water and to salts, alkalis, acids and b leaching agents .10 g/l Intermul-SLX is stable to about 60 g/l caustic soda at 20°C and to about 50 g/l caustic soda at 90°C without precipitation. In sulfuric acid baths down to and Including pH 1 , no precipitation occurs.

Application : In padding liquors for grey goods :  
4~10 g/l Intermul-SLX  
Pretreated goods : 06 ~4 g/l  
In long liquors for grey goods :  
0.5~2 g/l Intermul -SLX  
Pretreated goods : 0.3~0.5g/l

Caution : Should be observed in storage, handling and use. The product  
Must not be swallowed. For further information, please see the  
Safety Data Sheet.

**Storage Stability : lifetime 1 year under storage temperature condition  
Of 0°C ~ 30° C**



## Customer Information

### Wetting Agent (Intermul-DSW)

Concentrated Highly effective wetting Agent/Detergent for pretreating all types of textiles.

### Intermul-DSW

Very Good detergency with respect to fatty and oily contaminants in the prescour and in the bleach.

Very good wetting power.

Suitable for removing preparations and water soluble sizing agents.

Should preferably be used on fully flooded and continuous systems.

Good absorbency of scoured goods

Relatively low-foaming

Very good solubility in both cold and hot water.

Suitable for automatic dosing system.

APEO free

### Characteristics

Appearance : colorless liquid

Ionic nature : non-ionic

Specific gravity : 1.00

pH value in solution : neutral

Hard water stability : Stable to 30° dG

Electrolyte stability : stable to 10g/l salt

PH stability :stable from pH 2 to pH14

Alkaline stability : stable to 50g/l (NaoH 100%)

Compatibility : Compatible with anionic, cationic and non-ionic products .

Frost Stability : Intermul DSW may freeze. After thawing and proper stirring.

It can be used again without its properties being impaired.

## Method of use

### 1. Dissolving :

Intermul DSW is readily miscible with water and can  
If appropriate, also be added in undiluted form.

### 2. Quantities : The quantities depend on the substrate and its degree of contamination and also the method.

Dry -On-Wet Use : 2.0~4.0 ml/l

Wet-On-Wet Use : 1.0 ~3.0 ml/l

### 3. Application : Intermul DSW is concentrated universally usable detergent with excellent wetting power. The scoured article is characterized by a high degree of cleanliness and good absorbency.

It is suitable for washing all fiber types such as natural fibers, manmade fibres and their blends, in all formats, e.g.

Pretreatment of loose stock and yarn on circulation apparatus.

scouring of woven fabrics on the beam.

Continuous prescouring of woven fabrics from fibers of all types

Continuous bleaching of cotton and PES/Cotton.

as a wetting agent/detergent during desizing.

Scouring for the removal of lubricants on woven and knitted fabrics.

In addition, Intermul DSW is readily pourable, spontaneously soluble and has a good alkaline stability.

## Examples of use :

A\_ Continuous pressuring for the removal of oily contaminants:

2~4 boxes with :

0.5~2 ml/l Intermul DSW

2.0g/l soda ash (cotton)

0.5g/l soda ash (wool)

2.0g/l tetra sodium pyrophosphate (synthetic fibers)

Temperature : 60° C ~95° C

Rinse Thoroughly

Comments :

1. The detergent should be regularly dosed in order to maintain the correct.



## Customer Information

### Wetting Agent (Intermul-ET)

Concentrated Highly effective wetting Agent/Detergent for pretreating all types of textiles.

#### **Intermul-ET**

Very Good detergency with respect to fatty and oily contaminants in the prescour and in the bleach.

Very good wetting power.

Suitable for removing preparations and water soluble sizing agents.

Should preferably be used on fully flooded and continuous systems.

Good absorbency of scoured goods

Relatively low-foaming

Very good solubility in both cold and hot water.

Suitable for automatic dosing system.

APEO free

#### **Characteristics**

Appearance : colorless liquid

Ionic nature : non-ionic

Specific gravity : 1.00

pH value in solution : neutral

Hard water stability : Stable to 30° dG

Electrolyte stability : stable to 10g/l salt

PH stability :stable from pH 2 to pH14

Alkaline stability : stable to 50g/l (NaOH 100%)

Compatibility : Compatible with anionic, cationic and non-ionic products .

Frost Stability : Intermul ET may freeze. After thawing and proper stirring.

It can be used again without its properties being impaired.

## Method of use

### 1. Dissolving :

Intermul ET is readily miscible with water and can  
If appropriate, also be added in undiluted form.

### 2. Quantities : The quantities depend on the substrate and its degree of contamination and also the method.

Dry -On-Wet Use : 2.0~4.0 ml/l

Wet-On-Wet Use : 1.0 ~3.0 ml/l

### 3. Application : Intermul ET is concentrated universally usable detergent with excellent wetting power. The scoured article is characterized by a high degree of cleanliness and good absorbency.

It is suitable for washing all fiber types such as natural fibers, manmade fibres and their blends, in all formats, e.g.

Pretreatment of loose stock and yarn on circulation apparatus.

scouring of woven fabrics on the beam.

Continuous prescouring of woven fabrics from fibers of all types

Continuous bleaching of cotton and PES/Cotton.

as a wetting agent/detergent during desizing.

Scouring for the removal of lubricants on woven and knitted fabrics.

In addition, Intermul ET is readily pourable, spontaneously soluble and has a good alkaline stability.

## Examples of use :

A\_ Continuous pressuring for the removal of oily contaminates:

2~4 boxes with :

0.5~2 ml/l Intermul ET

2.0g/l soda ash (cotton)

0.5g/l soda ash (wool)

2.0g/l tetra sodium pyrophosphate (synthetic fibers)

Temperature : 60° C ~95° C

Rinse Thoroughly

Comments :

2. The detergent should be regularly dosed in order to maintain the correct.



#### Customer Information

### Wetting Agent (Intermul-AKH)

Concentrated Highly effective wetting Agent/Detergent for pretreating all types of textiles.

#### **Intermul-AKH**

Very Good detergency with respect to fatty and oily contaminants in the prescour and in the bleach.

Very good wetting power.

Suitable for removing preparations and water soluble sizing agents.

Should preferably be used on fully flooded and continuous systems.

Good absorbency of scoured goods

Relatively low-foaming

Very good solubility in both cold and hot water.

Suitable for automatic dosing system.

APEO free

#### **Characteristics**

Appearance : colorless liquid

Ionic nature : non-ionic

Specific gravity : 1.00

pH value in solution : neutral

Hard water stability : Stable to 30° dG

Electrolyte stability : stable to 10g/l salt

PH stability :stable from pH 2 to pH14

Alkaline stability : stable to 50g/l (NaoH 100%)

Compatibility : Compatible with anionic, cationic and non-ionic products .

Frost Stability : Intermul AKH may freeze. After thawing and proper stirring.

It can be used again without its properties being imparted.

## Method of use

### 1. Dissolving :

Intermul AKH is readily miscible with water and can  
If appropriate, also be added in undiluted form.

### 2. Quantities : The quantities depend on the substrate and its degree of contamination and also the method.

Dry -On-Wet Use : 2.0~4.0 ml/l

Wet-On-Wet Use : 1.0 ~3.0 ml/l

### 3. Application : Intermul AKH is concentrated universally usable detergent with excellent wetting power. The scoured article is characterized by a high degree of cleanliness and good absorbency.

It is suitable for washing all fiber types such as natural fibers, manmade fibres and their blends, in all formats, e.g.

Pretreatment of loose stock and yarn on circulation apparatus.

scouring of woven fabrics on the beam.

Continuous prescouring of woven fabrics from fibers of all types

Continuous bleaching of cotton and PES/Cotton.

as a wetting agent/detergent during desizing.

Scouring for the removal of lubricants on woven and knitted fabrics.

In addition, Intermul AKH is readily pourable, spontaneously soluble and has a good alkaline stability.

## Examples of use :

A\_ Continuous pressuring for the removal of oily contaminates:

2~4 boxes with :

0.5~2 ml/l Intermul AKH

2.0g/l soda ash (cotton)

0.5g/l soda ash (wool)

2.0g/l tetra sodium pyrophosphate (synthetic fibers)

Temperature : 60° C ~95° C

Rinse Thoroughly

Comments :

3. The detergent should be regularly dosed in order to maintain the correct.





#### Customer Information

<b>Wetting Agent (Intermul-FTK)</b>
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Concentrated Highly effective wetting Agent/Detergent for pretreating all types of textiles.

#### **Intermul-FTK**

Very Good detergency with respect to fatty and oily contaminants in the prescour and in the bleach.

Very good wetting power.

Suitable for removing preparations and water soluble sizing agents.

Should preferably be used on fully flooded and continuous systems.

Good absorbency of scoured goods

Relatively low-foaming

Very good solubility in both cold and hot water.

Suitable for automatic dosing system.

APEO free

#### **Characteristics**

Appearance : colorless liquid

Ionic nature : non-ionic

Specific gravity : 1.00

pH value in solution : neutral

Hard water stability : Stable to 30° dG

Electrolyte stability : stable to 10g/l salt

PH stability :stable from pH 2 to pH14

Alkaline stability : stable to 50g/l (NaoH 100%)

Compatibility : Compatible with anionic, cationic and non-ionic products .

Frost Stability : Intermul FTK may freeze. After thawing and proper stirring.

It can be used again without its properties being impaired.

## Method of use

### 1. Dissolving :

Intermul FTK is readily miscible with water and can  
If appropriate, also be added in undiluted form.

### 2. Quantities : The quantities depend on the substrate and its degree of contamination and also the method.

Dry -On-Wet Use : 2.0~4.0 ml/l

Wet-On-Wet Use : 1.0 ~3.0 ml/l

### 3. Application : Intermul FTK is concentrated universally usable detergent with excellent wetting power. The scoured article is characterized by a high degree of cleanliness and good absorbency.

It is suitable for washing all fiber types such as natural fibers, manmade fibres and their blends, in all formats, e.g.

Pretreatment of loose stock and yarn on circulation apparatus.

scouring of woven fabrics on the beam.

Continuous prescouring of woven fabrics from fibers of all types

Continuous bleaching of cotton and PES/Cotton.

as a wetting agent/detergent during desizing.

Scouring for the removal of lubricants on woven and knitted fabrics.

In addition, Intermul FTK is readily pourable, spontaneously soluble and has a good alkaline stability.

## Examples of use :

A\_ Continuous pressuring for the removal of oily contaminants:

2~4 boxes with :

0.5~2 ml/l Intermul FTK

2.0g/l soda ash (cotton)

0.5g/l soda ash (wool)

2.0g/l tetra sodium pyrophosphate (synthetic fibers)

Temperature : 60° C ~95° C

Rinse Thoroughly

Comments :

4. The detergent should be regularly dosed in order to maintain the correct.



Customer Information

## **Sequestering Agent (Interquest –AD)**

Dyeing Auxiliary

### **Interquest-AD**

Strongly binds heavy metal ions like calcium, magnesium, iron and coppers etc. It has dispersing and protective agent and prevents impurities from re-attaching to fibre on dyeing cellulosic fibre and their blends.

### **Uses**

Suitable for cotton, polyester, cotton/polyester blends while by exhaust and continuous method with reactive vat and direct dyes. Softening process water in the textile industry, Removing encrustation's from tanks and equipment.

### **Characteristics**

Uses on cotton and polyester pretreatment process, promotes detergency, prevents scale impurities and has very good colloidal and dispersing effects.

Inactivates heavy metal ions and prevents scale re -attach on running roller in polyester reducing and mercerizing process, mist spot and crease mark etc. Prevents dyestuffs tarring in dyeing liquor and remove oligomer impurities. No effect on colors shade. No surfactant content.

### **Benefits**

Makes dye bath softer by inactivating impurities. Creates a stable dye bath. No shade change thus gains brilliant color shade. Suitable for jet and soft flow dyeing machine. Improves fastness for reactive dyes. Enhances the effect of simultaneously applied detergents and dispersants. Generates no foam, is highly stable to alkali, oxidation and hydrolysis.

## **Properties**

Composition	: Preparation based on phosphoric acid derivatives.
Appearance	: Clear, colorless to light yellowish.
Ion	: Anionic
Suitable dilute	: Cold water
pH	: 3.0~4.0
Stability	: Stable for strong alkali
Application	: The following recommendation may treat as a guide : 0.5 ~1 g/l
Caution	: The usual hygiene and safety rules for handling chemicals should be Observed in storage, handling and use. The products must not be Swallowed.
<b>Storage stability</b>	<b>: Lifetime 1 Year under storage temperature Condition of 0° ~ 30° c.</b>



Customer Information

## **Sequestering Agent (Interquest-AP-SN)**

Dyeing Auxiliary

### **Interquest-AP-SN**

Strongly binds heavy metal ions like calcium, magnesium, iron and coppers etc. It has dispersing and protective agent and prevents impurities from re-attaching to fibre on dyeing cellulosic fibre and their blends.

### **Uses**

Suitable for cotton, polyester, cotton/polyester blends while by exhaust and continuous method with reactive vat and direct dyes. Softening process water in the textile industry, Removing encrustation's from tanks and equipment.

### **Characteristics**

Uses on cotton and polyester pretreatment process, promotes detergency, prevents scale impurities and has very good colloidal and dispersing effects.

Inactivates heavy metal ions and prevents scale re -attach on running roller in polyester reducing and mercerizing process, mist spot and crease mark etc. Prevents dyestuffs tarring in dyeing liquor and remove oligomer impurities. No effect on colors shade. No surfactant content.

### **Benefits**

Makes dye bath softer by inactivating impurities. Creates a stable dye bath. No shade change thus gains brilliant color shade. Suitable for jet and soft flow dyeing machine. Improves fastness for reactive dyes. Enhances the effect of simultaneously applied detergents and dispersants. Generates no foam, is highly stable to alkali, oxidation and hydrolysis.

## **Properties**

Composition	: Preparation based on phosphoric acid derivatives.
Appearance	: Clear, colorless to light yellowish.
Ion	: Anionic
Suitable dilute	: Cold water
pH	: 2.64
Stability	: Stable for strong alkali
Application	: The following recommendation may treat as a guide : 0.5 ~1 g/l
Caution	: The usual hygiene and safety rules for handling chemicals should be observed in storage, handling and use. The products must not be Swallowed.
<b>Storage stability</b>	<b>: Lifetime 1 Year under storage temperature Condition of 0° ~ 30° c.</b>



Customer Information

## **Sequestering Agent (Interquest-LQ)**

Dyeing Auxiliary

### **Interquest-LQ**

Strongly binds heavy metal ions like calcium, magnesium, iron and coppers etc. It has dispersing and protective agent and prevents impurities from re-attaching to fibre on dyeing cellulosic fibre and their blends.

### **Uses**

Suitable for cotton, polyester, cotton/polyester blends while by exhaust and continuous method with reactive vat and direct dyes. Softening process water in the textile industry, Removing encrustation's from tanks and equipment.

### **Characteristics**

Uses on cotton and polyester pretreatment process, promotes detergency, prevents scale impurities and has very good colloidal and dispersing effects.

Inactivates heavy metal ions and prevents scale re -attach on running roller in polyester reducing and mercerizing process, mist spot and crease mark etc. Prevents dyestuffs tarring in dyeing liquor and remove oligomer impurities. No effect on colors shade. No surfactant content.

### **Benefits**

Makes dye bath softer by inactivating impurities. Creates a stable dye bath. No shade change thus gains brilliant color shade. Suitable for jet and soft flow dyeing machine. Improves fastness for reactive dyes. Enhances the effect of simultaneously applied detergents and dispersants. Generates no foam, is highly stable to alkali, oxidation and hydrolysis.

## **Properties**

Composition	: Preparation based on phosphoric acid derivatives.
Appearance	: Clear, colorless to light yellowish.
Ion	: Anionic
Suitable dilute	: Cold water
pH	: 7.2
Stability	: Stable for strong alkali
Application	: The following recommendation may treat as a guide : 0.5 ~1 g/l
Caution	: The usual hygiene and safety rules for handling chemicals should be Observed in storage, handling and use. The products must not be Swallowed.
<b>Storage stability</b>	<b>: Lifetime 1 Year under storage temperature Condition of 0° ~ 30° c.</b>





Customer Information

## Peroxide Stabilizer (Interquest-UKS)

Dyeing Auxiliary

### **Interquest-UKS**

Organo stabilizer to control the decay of hydrogen peroxide while use in peroxide exhaust, cold pad-batch and pad-steam bleaching without silicate and alkaline discontinuous long liquor bleaching process.

### **Characteristics**

Produces a very much softer handle to the bleached fabric than inorganic stabilizers such as sodium silicate.

Should always be used in conjunction with a wetting agent / detergent to ensure an optimum result.

Forms complexes with heavy metal ions thus preventing catalytic damage to the cotton fibre.

Has good caustic stability (to 15° Be Caustic soda), which ensures problem free working with reinforced liquors.

1. Contains no added surfactant
2. Contains no silicate

3. Liquid, pumpable formulation miscible with water in all proportion.
4. Causes very little gas to form on the impregnated batches, thus minimizing the mechanical problems.

### Properties

Appearance	: Clear, colorless liquid.
Chemical Composition	: Sodium salt of preparation of oligomeric ester Condenses containing polycarboxylic acid.
Ionic Character	: An-ionic
pH	: About 4
Solubility	: Easily soluble in cold water.
Specific Gravity	: 1.2
Application	: The following recommendation may treat as a guide: - 0.5~1.0 g/l Interquest-UKS.
<b>Storage Stability</b>	<b>: Life time 1 year under storage temperature condition Of 0°C~30°C</b>
<b>Caution</b>	<b>: Should be observed in storage, handling and use. The Product must not be swallowed. For further information, Please see the Safety Data Sheet.</b>



Customer Information

## Peroxide Stabilizer (Intersent-PS)

Dyeing Auxiliary

### **Intersent-PS**

Organo stabilizer to control the decay of hydrogen peroxide while use in peroxide exhaust, cold pad-batch and pad-steam bleaching without silicate and alkaline discontinuous long liquor bleaching process.

### **Characteristics**

Produces a very much softer handle to the bleached fabric than inorganic stabilizers such as sodium silicate.

Should always be used in conjunction with a wetting agent / detergent to ensure an optimum result.

Forms complexes with heavy metal ions thus preventing catalytic damage to the cotton fibre.

Has good caustic stability (to 15° Be Caustic soda), which ensures problem free working with reinforced liquors.

1. Contains no added surfactant
2. Contains no silicate

3. Liquid, pumpable formulation miscible with water in all proportion.
4. Causes very little gas to form on the impregnated batches, thus minimizing the mechanical problems.

### **Properties**

Appearance	: Clear, colorless liquid.
Chemical Composition	: Sodium salt of preparation of oligomeric ester Condenses containing polycarboxylic acid.
Ionic Character	: An-ionic
pH	: About 4
Solubility	: Easily soluble in cold water.
Specific Gravity	: 1.2
Application	: The following recommendation may treat as a guide: - 0.5~1.0 g/l Intersent-PS.
<b>Storage Stability</b>	<b>: Life time 1 year under storage temperature condition Of 0°C~30°C</b>
<b>Caution</b>	<b>: Should be observed in storage, handling and use. The Product must not be swallowed. For further information, Please see the Safety Data Sheet.</b>



Customer Information

## Peroxide Stabilizer (Intersent-SPL)

Dyeing Auxiliary

### **Intersent-SPL**

Organo stabilizer to control the decay of hydrogen peroxide while use in peroxide exhaust, cold pad-batch and pad-steam bleaching without silicate and alkaline discontinuous long liquor bleaching process.

### **Characteristics**

Produces a very much softer handle to the bleached fabric than inorganic stabilizers such as sodium silicate.

Should always be used in conjunction with a wetting agent / detergent to ensure an optimum result.

Forms complexes with heavy metal ions thus preventing catalytic damage to the cotton fibre.

Has good caustic stability (to 15° Be Caustic soda), which ensures problem free working with reinforced liquors.

1. Contains no added surfactant
2. Contains no silicate

3. Liquid, pumpable formulation miscible with water in all proportion.
4. Causes very little gas to form on the impregnated batches, thus minimizing the mechanical problems.

### **Properties**

Appearance	: Clear, colorless liquid.
Chemical Composition	: Sodium salt of preparation of oligomeric ester Condenses containing polycarboxylic acid.
Ionic Character	: An-ionic
pH	: About 4
Solubility	: Easily soluble in cold water.
Specific Gravity	: 1.2
Application	: The following recommendation may treat as a guide: - 0.5~1.0 g/l Intersent-SPL.
<b>Storage Stability</b>	<b>: Life time 1 year under storage temperature condition Of 0°C~30°C</b>
<b>Caution</b>	<b>: Should be observed in storage, handling and use. The Product must not be swallowed. For further information, Please see the Safety Data Sheet.</b>



Customer Information

## **Anticreasing Agent (Interlube-2000)**

Dyeing Auxiliary

### **Interlube-2000**

**Lubricant to prevent creasing in the wet finishing of textiles of all fibres.**

### **Uses**

Interlube-2000 is particularly useful for processing under difficult conditions such as in short liquors or on heavily loaded winches and jets and for processing heavy, crease -prone goods and materials. In the wet finishing of any fibre prone to creasing, wrinkling, crowsfeet, and chafe marking.

### **Characteristics**

Optimizes dependability of results. Lowers the friction coefficient of the textile material. Does not impair rubbing fastness. Lowers textile -to-textile friction. Generates little foam. Reduces textile - to-metal friction. Has a non-permanent softening effect.

### **Benefits**

Excellent fastness properties. No formation of permanent creases during wet finishing. Ropes open and displace more easily, so improving levelness. Suitability for all dyes methods. No foam problems in jet dyeing machines, improved run of goods. Higher utilization of jets winches, paddle and drum-type dyeing machines. Improved quality of results in short-liquor processing. No effect on dyeing properties, whatever the substrate. Best dyes yield and high reproducibility of results.

## **Properties**

Composition	: Aqueous preparation of polyether-based copolymer.
Appearance	: Clear, Viscous emulsion.
Ionic Character	: Anionic
Suitable dilute	: Highly stable in hard water, and to acids, alkalis and electrolytes in The usual concentrations.
pH of 5% solution	: About 4
Application	: The following recommendation may treat As a guide: 1 ~2 g/l
Caution	: The usual hygiene and safety rules for handling chemicals should be observed in storage, handling and use. The products must not be Swallowed.
Storage stability	: <b>Lifetime 1 Year under storage temperature Condition of 0° C ~ 30° C.</b>





Customer Information

## Anti Foaming Agent (Interpol-FA-100)

Dyeing Auxiliary

### Interpol-FA-100

High alkali and electrolytes resistant having permanent foam suppression properties with de-aerating agent.

### Uses

During high alkali or electrolyte bath processing removes air or destroying existing foam strongly recommended for short - liquor dyeing at both low all high temperatures.

Very much suitable for removing foam of all treatment in batch wise or continuous process for textile at strong alkali and acid bath.

### Characteristics

Immediate de-foaming action with permanent prevention, foamless air removal and wetting effects. Removing air bubbles carried into the liquor during continuous or short term processing. Also there will be no oil spot when using. Good dilution.

### Benefits

Dependable cost effective, easy to maintain creaseless level dyeing even at short -liquor dyeing machines. Easy to handle. Promotes fibre and surface levelness in dyeing. Economical to use. Removing air.

### Properties

Composition : Preparation Based On Alkanol-Containing Alkylaryl ethoxylates and derivatives of methyl polysiloxane.

Appearance	: White Liquid
Specific gravity	: About 1.0
Ionic character	: slightly anionic
Ph of 5% Solution	: About 8
Suitable dilute	: highly stable in hard water, alkali, Acid and electrolytes.
Application	: the following recommendation may treat as a guide :- 0.1~1.0 g/l kbc-110afc.
Caution	: The usual hygiene and safety rules for handling chemicals Should be observed in storage, handling and use. The product Must not be swallowed.
<b>Storage stability</b>	<b>: lifetime 1 year under storage temperature Condition of 0°c~30°c</b>



Customer Information

## Anti Foaming Agent (Interpol-ATF)

Dyeing Auxiliary

### **Interpol-ATF**

High alkali and electrolytes resistant having permanent foam suppression properties with de-aerating agent.

### **Uses**

During high alkali or electrolyte bath processing removes air or destroying existing foam strongly recommended for short - liquor dyeing at both low all high temperatures.

Very much suitable for removing foam of all treatment in batch wise or continuous process for textile at strong alkali and acid bath.

### **Characteristics**

Immediate de-foaming action with permanent prevention, foamless air removal and wetting effects. Removing air bubbles carried into the liquor during continuos or short term processing. Also there will be no oil spot when using. Good dilution.

### **Benefits**

Dependable cost effective, easy to maintain creaseless level dyeing even at short -liquor dyeing machines. Easy to handle. Promotes fibre and surface levelness in dyeing. Economical to use. Removing air.

### **Properties**

Composition : Preparation Based On Alkanol-Containing Alkylaryl ethoxylates and derivatives of methyl polysiloxane.



Customer Information

## **Peroxide Killer (Interpol-BS)**

Dyeing Auxiliary

### **Interpol -BS**

Excellent dyeing assistant for neutralization of surplus hydrogen peroxide in fabric and bath after scouring and bleaching with hydrogen peroxide to make preparation for immediate dyeing in the same bath.

### **Uses**

Under usual way, we must wash bleach cloth in warm and cold water respectively to remove the surplus oxide after bleaching and then dye it in another bath, Peroxide Killer neutralizes the remaining oxide thoroughly in a short time. Therefore, it reduces greatly soaping time and saves much trouble of dyeing work compared with the usual method.

### **Characteristics**

It makes immediate dyeing possible after bleaching with hydrogen peroxide in the bath where bleaching was done. No surfactant content multifunctional product.

### **Benefits**

Greatly reduces dyeing time. Dyeing can be done in the same bath without wasting time and loss of energy. Simple to handle, suitable for automatic dispersing equipment. Interpol-BS does not foam, hence smooth running of goods. Simplifies recipes and handling. Reduces risk of error. Advantage in storage.

## **Properties**

Composition	: Special nonionic activator and poly carboxylic acid compound.
Appearance	: Slightly yellowish clear liquid.
Specific Gravity	: About 1.4 g/cm <sup>3</sup>
Ionic Character	: Anionic
Suitable dilute	: Stable in hard water alkalis and acids.
PH	: About 5
Application	: The following recommendation may treat as a guide :- Drain the waste solution after scouring and bleaching with hydrogen peroxide and supply the bath with fresh water, neutralization should be done with Interpol-BS at 50° -20 minutes. Drain the solution again there after and supply the bath with fresh water and start dyeing work.

### **Required Quantity 0.5~1.5 g/l**

Caution : The usual hygiene and safety rules for handling chemicals should be observed in storage, handling and use. The product must be swallowed.

**Storage Stability** : **life time 1 year under storage temperate condition of 0°C~30°C.**



Customer Information

## **Peroxide Killer (Interpol-PC)**

Dyeing Auxiliary

### **Interpol -PC**

Excellent dyeing assistant for neutralization of surplus hydrogen peroxide in fabric and bath after scouring and bleaching with hydrogen peroxide to make preparation for immediate dyeing in the same bath.

### **Uses**

Under usual way, we must wash bleach cloth in warm and cold water respectively to remove the surplus oxide after bleaching and then dye it in another bath, Peroxide Killer neutralizes the remaining oxide thoroughly in a short time. Therefore, it reduces greatly soaping time and saves much trouble of dyeing work compared with the usual method.

### **Characteristics**

It makes immediate dyeing possible after bleaching with hydrogen peroxide in the bath where bleaching was done. No surfactant content multifunctional product.

### **Benefits**

Greatly reduces dyeing time. Dyeing can be done in the same bath without wasting time and loss of energy. Simple to handle, suitable for automatic dispersing equipment. Interpol-PC does not foam, hence smooth running of goods. Simplifies recipes and handling. Reduces risk of error. Advantage in storage.

### **Properties**

Composition	: Special nonionic activator And poly carboic acid compound.
Appearance	: Slightly yellowish clear liquid.
Specific Gravity	: About 1.4 g/cm <sup>3</sup>
Ionic Character	: Anionic
Suitable dilute	: Stable in hard water alkalis and acids.
PH	: Abut 5
Application	: The following recommendation may treat as a guide :- Drain the waste solution after scouring and bleaching with hydrogen peroxide and supply the bath with fresh water, neutralization should be done with Interpol-PC at 50° -20 minutes. Drain the solution again there after and supply the bath with fresh water and start dyeing work.

**Required Quantity 0.5~1.5 g/l**

Caution : The usual hygiene and safety rules for handling chemicals should be observed in storage, handling and use. The product must be swallowed.

**Storage Stability : life time 1 year under storage temperate condition of 0°C~30°C.**



Customer Information

## Soaping Agent (Interpol-SA)

Dyeing Auxiliary

### **Interpol-SA**

Washing -off agent for reactive dyeing and prints on cellulosic fabrics and their blends.

### **Uses**

Excellent soaping and washing-off chemical for reactive dyeing and prints on cellulosic fabrics and their blends.

### **Characteristics**

Reduces water hardness. Helps to dissolve reactive dyes. Excellent washing -off properties for unfixed dyes. Produces very low foam during washing -off process. Promotes solubility of hydrolyzed reactive dyes .No electrolytic effects.

### **Benefits**

Improves color yield and wet fastness. No staining of white grounds on prints. No effect on the shades of dyeing and prints. Softening effect on soaping bath, enabling the goods to be washed off in water with low hardness-maximum fastness properties can be achieved.



## Properties

Composition	: Sodium salt of a modified poly acrylic acid.
Appearance	: Yellowish medium -viscous liquid.
Specific gravity	: About 1.2
Ionic Character	: Anionic
Suitable Dilute	: Diluted in cold and warm water.
pH	: About 8.5
General Stability	: Stable in hard water, alkali and acid.
Application	: Depend on the type of water and state of the material being treated But the following recommendation may treat as a guide :- Soaping Dyeing: 1~3 g/l Soaping Prints: 3~5 g/l
Caution	: Should be observed in storage, handling and use. The product must Not be swallowed. For further information, please see the safety Data Sheet.
<b>Storage Stability</b>	<b>: Life time 1 year under storage temperature condition of 0°C~40°C.</b>



Customer Information

## Soaping Agent (Interpol-SR)

Dyeing Auxiliary

### **Interpol-SR**

Washing -off agent for reactive dyeing and prints on cellulosic fabrics and their blends.

### **Uses**

Excellent soaping and washing-off chemical for reactive dyeing and prints on cellulosic fabrics and their blends.

### **Characteristics**

Reduces water hardness. Helps to dissolve reactive dyes. Excellent washing -off properties for unfixed dyes. Produces very low foam during washing -off process. Promotes solubility of hydrolyzed reactive dyes .No electrolytic effects.

### **Benefits**

Improves color yield and wet fastness. No staining of white grounds on prints. No effect on the shades of dyeing and prints. Softening effect on soaping bath, enabling the goods to be washed off in water with low hardness-maximum fastness properties can be achieved.

## Properties

Composition	: Sodium salt of a modified poly acrylic acid.
Appearance	: Yellowish medium -viscous liquid.
Specific gravity	: About 1.2
Ionic Character	: Anionic
Suitable Dilute	: Diluted in cold and warm water.
pH	: About 8.5
General Stability	: Stable in hard water, alkali and acid.
Application	: Depend on the type of water and state of the material being treated But the following recommendation may treat as a guide :- Soaping Dyeing: 1~3 g/l Soaping Prints: 3~5 g/l
Caution	: Should be observed in storage, handling and use. The product must Not be swallowed. For further information, please see the safety Data Sheet.
<b>Storage Stability</b>	<b>: Life time 1 year under storage temperature condition of 0°C~40°C.</b>



Customer Information

## Soaping Agent (Interpol-HDL)

Dyeing Auxiliary

### **Interpol-HDL**

Washing -off agent for reactive dyeing and prints on cellulosic fabrics and their blends.

### **Uses**

Excellent soaping and washing-off chemical for reactive dyeing and prints on cellulosic fabrics and their blends.

### **Characteristics**

Reduces water hardness. Helps to dissolve reactive dyes. Excellent washing -off properties for unfixed dyes. Produces very low foam during washing -off process. Promotes solubility of hydrolyzed reactive dyes .No electrolytic effects.

### **Benefits**

Improves color yield and wet fastness. No staining of white grounds on prints. No effect on the shades of dyeing and prints. Softening effect on soaping bath, enabling the goods to be washed off in water with low hardness-maximum fastness properties can be achieved.

## Properties

Composition	: Sodium salt of a modified poly acrylic acid.
Appearance	: Yellowish medium -viscous liquid.
Specific gravity	: About 1.2
Ionic Character	: Anionic
Suitable Dilute	: Diluted in cold and warm water.
pH	: About 8.5
General Stability	: Stable in hard water, alkali and acid.
Application	: Depend on the type of water and state of the material being treated But the following recommendation may treat as a guide :- Soaping Dyeing: 1~3 g/l Soaping Prints: 3~5 g/l
Caution	: Should be observed in storage, handling and use. The product must Not be swallowed. For further information, please see the safety Data Sheet.
<b>Storage Stability</b>	<b>: Life time 1 year under storage temperature condition of 0°C~40°C.</b>



Customer Information

## Fixing Agent For Reactive Dyes (Interfix-BF)

Dyeing Auxiliary

### Interfix-BF

**Interfix-BF is improver wet fastness for dyeing and prints on knit fabrics which is produced by reactive and direct dyes and it is formaldehyde-free.**

### Uses

This new fixing agent is synthesized to improve the fastness without change in shade, even through the treatment can be carried out after dyeing & printing. Suitable for use in exhaust and padding method.

### Characteristics

Non-formaline type agent, therefore, it solves some harmful problems for formaline. Has little to no effect on dye shades with the added advantage of increasing fastness to washing, wet processing light, chlorine, perspiration and also change on laps of time after dyeing and printing.

### Benefits

Suitable against impairment of fastness properties to protect dyeing and prints. Highly stable to steam and dry heat . Can be used along with textile finishing resins. No contamination of goods, effluent or environment . Very good wash fastness. No impairment of fastness properties during steaming .

### Properties

Composition : Special polyalkylamine derivative.  
Appearance : Clear yellowish liquid.  
Ionic Character : Cationic.

Suitable Dilute : Easily soluble in cold water.  
pH : Approx. 5  
Specific gravity at 20°C : about 1.1  
Application : The following recommendation may treat as a guide :-

- Exhaustion Method

Pale shade 1~2 % o.w.f  
Deep Shade 2~3% o.w.f

It is suggested that this be run for 20 minutes at 40° ~60°C. Dry after rinsing .

\* Continuous method

Used at 5~20 g/l  
Pick up 65 ~85%  
Drying 110 ~ 150°C, 2~3 min.

Storage Stability : Life time about 1 year under storage condition of 0°C ~ 30°C.

**Caution : The usual hygiene and safety rules for handling chemicals should be observed in storage , handling and use. The product must not be swallowed. For further information on ecology/toxicology, see the relevant safety Data sheet.**



Customer Information

## Fixing Agent For Reactive Dyes (Interfix-SF)

Dyeing Auxiliary

### Interfix-SF

**Interfix-SF is improver wet fastness for dyeing and prints on knit fabrics which is produced by reactive and direct dyes and it is formaldehyde-free.**

### Uses

This new fixing agent is synthesized to improve the fastness without change in shade, even through the treatment can be carried out after dyeing & printing. Suitable for use in exhaust and padding method.

### Characteristics

Non-formaline type agent, therefore, it solves some harmful problems for formaline. Has little to no effect on dye shades with the added advantage of increasing fastness to washing, wet processing light, chlorine, perspiration and also change on laps of time after dyeing and printing.

### Benefits

Suitable against impairment of fastness properties to protect dyeing and prints. Highly stable to steam and dry heat . Can be used along with textile finishing resins. No contamination of goods, effluent or environment . Very good wash fastness. No impairment of fastness properties during steaming .

### Properties

Composition : Special polyalkylamine derivative.  
Appearance : Clear yellowish liquid.  
Ionic Character : Cationic.



Suitable Dilute : Easily soluble in cold water.  
pH : Approx. 5.6  
Specific gravity at 20°C : about 1.3  
Application : The following recommendation may treat as a guide :-

- Exhaustion Method

Pale shade 1~2 % o.w.f  
Deep Shade 2~3% o.w.f

It is suggested that this be run for 20 minutes at 40° ~60°C. Dry after rinsing .

\* Continuous method

Used at 5~20 g/l

Pick up 65 ~85%

Drying 110 ~ 150°C, 2~3 min.

Storage Stability : Life time about 1 year under storage condition of 0°C ~ 30°C.

**Caution : The usual hygiene and safety rules for handling chemicals should be observed in storage , handling and use. The product must not be swallowed. For further information on ecology/toxicology, see the relevant safety Data sheet.**



Customer Information

## **Fixing Agent-TXR (Little Shade Change)**

Dyeing Auxiliary

### **Interfix-TXR**

Formaldehyde-free wet fastness Improver for dyeing and prints produced with reactive and direct dyes on cellulosic fibres. It does little shade change.

### **Uses**

Aftertreating dyeings produced with reactive dyes and direct dyes on cellulosic fibres by the exhaust and pad methods. After dyeing and prints produced with direct dyes on cellulose fibres.

### **Characteristics**

Contains no formaldehyde. Has affinity for the fibre. Greatly improves the fastness of reactive dyeing and prints to water, perspiration and wet hot pressing. Protects dyeing and prints produced with reactive dyes against impairment of fastness properties by hydrolysis and themocracking. Markedly improves the wash fastness and other wet fastness properties of dyeing and prints produced with direct dyes. It is very stable to steaming and dry heat. Has good leveling power and migration properties. Has little or no effect on the shade of dyeing and prints. Causes little or no impairment of light fastness in the dry or wet state. Does not effect handle.

## **Properties**

Composition : Aqueous preparation based on polyethylene polyamine..  
Appearance : Clear, reddish brown, low-viscosity liquid.  
Ionic Character : Cationic  
pH Of (5% solution) : About 5.6  
Specific Gravity : about 1.3

Caution : The usual hygiene and safety rules for handling chemicals should be Observed in storage, handling and use. The products must not be Swallowed.

Application : The following recommendation may treat as a guide :

Exhaust Method

0.5~2 % Interfix-TXR

Continuous Method

10~20 g/l Interfix -TXR

**Storage stability : Lifetime 1 Year under storage temperature  
Condition of 0° ~ 30° c.**



Customer Information

## Fixing Agent For Reactive Dyes (Interfix-P4G)

Dyeing Auxiliary

### Interfix-P4G

**Interfix-P4G is improver wet fastness for dyeing and prints on knit fabrics which is produced by reactive and direct dyes and it is formaldehyde-free.**

### Uses

This new fixing agent is synthesized to improve the fastness without change in shade, even through the treatment can be carried out after dyeing & printing. Suitable for use in exhaust and padding method.

### Characteristics

Non-formaline type agent, therefore, it solves some harmful problems for formaline. Has little to no effect on dye shades with the added advantage of increasing fastness to washing, wet processing light, chlorine, perspiration and also change on laps of time after dyeing and printing.

### Benefits

Suitable against impairment of fastness properties to protect dyeing and prints. Highly stable to steam and dry heat . Can be used along with textile finishing resins. No contamination of goods, effluent or environment . Very good wash fastness. No impairment of fastness properties during steaming .

### Properties

Composition : Special polyalkylamine derivative.  
Appearance : Clear yellowish liquid.  
Ionic Character : Cationic.

Suitable Dilute : Easily soluble in cold water.  
pH : Approx. 5  
Specific gravity at 20°C : about 1.1  
Application : The following recommendation may treat as a guide :-

- Exhaustion Method

Pale shade 1~2 % o.w.f  
Deep Shade 2~3% o.w.f

It is suggested that this be run for 20 minutes at 40° ~60°C. Dry after rinsing .

\* Continuous method

Used at 5~20 g/l  
Pick up 65 ~85%  
Drying 110 ~ 150°C, 2~3 min.

Storage Stability : Life time about 1 year under storage condition of 0°C ~ 30°C.

**Caution : The usual hygiene and safety rules for handling chemicals should be observed in storage , handling and use. The product must not be swallowed. For further information on ecology/toxicology, see the relevant safety Data sheet.**



Customer Information

## Fixing Agent For Reactive Dyes (Interfix-LNW)

Dyeing Auxiliary

### Interfix-LNW

**Interfix-LNW is improver wet fastness for dyeing and prints on knit fabrics which is produced by reactive and direct dyes and it is formaldehyde-free.**

### Uses

This new fixing agent is synthesized to improve the fastness without change in shade, even through the treatment can be carried out after dyeing & printing. Suitable for use in exhaust and padding method.

### Characteristics

Non-formalin type agent, therefore, it solves some harmful problems for formalin. Has little to no effect on dye shades with the added advantage of increasing fastness to washing, wet processing light, chlorine, perspiration and also change on laps of time after dyeing and printing.

### Benefits

Suitable against impairment of fastness properties to protect dyeing and prints. Highly stable to steam and dry heat . Can be used along with textile finishing resins. No contamination of goods, effluent or environment . Very good wash fastness. No impairment of fastness properties during steaming .

### Properties

Composition : Special polyalkylamine derivative.  
Appearance : Clear yellowish liquid.  
Ionic Character : Cationic.

Suitable Dilute : Easily soluble in cold water.  
pH : Approx. 5  
Specific gravity at 20°C : about 1.1  
Application : The following recommendation may treat as a guide :-

- Exhaustion Method

Pale shade 1~2 % o.w.f  
Deep Shade 2~3% o.w.f

It is suggested that this be run for 20 minutes at 40° ~60°C. Dry after rinsing .

\* Continuous method

Used at 5~20 g/l  
Pick up 65 ~85%  
Drying 110 ~ 150°C, 2~3 min.

Storage Stability : Life time about 1 year under storage condition of 0°C ~ 30°C.

**Caution : The usual hygiene and safety rules for handling chemicals should be observed in storage , handling and use. The product must not be swallowed. For further information on ecology/toxicology, see the relevant safety Data sheet.**



Customer Information

## Silicone Softener (Intertuch-Rs)

Dyeing Auxiliary

### **Intertuch Rs**

Newly developed amino modified Textile Softening agent for all fibres. It has good mechanical and bath stability.

### **Uses**

Easily usable in knit and woven fabrics by exhaust and padding method. Suitable for cotton & synthetic fibre and can be applied for resin finishing.

### **Characteristics**

Suitable for all fabrics and having permanent softness with very good smooth surface by exhaust and padding method.

It is compatible with resin and catalyst, improves scouring effect.

No oil spot and gum up.

Less color changing and color dropping of dyestuffs.

Benefits Good compatibility to another finishing agents. Longer softening effect with better wear ability. Can be used universally.

### **Properties**

Composition	: Special amino modified silicone.
Appearance	: Clear Liquid.
Ionic Character	: Nonionic /Slight cationic.
Suitable Dilute	: Easily soluble in cold and warm water.
pH	: About 5
Storage Stability	: Life time about 1 year under storage condition of 0°C ~ 30°C.
Application	: The following recommendation may treat as a guide : 0.5~1.5 g/l.





Customer Information

## Silicone Softener (Intertouch-MSCO)

Dyeing Auxiliary

### **Intertouch-MSCO**

Newly developed amino modified Textile Softening agent for all fibres. It has good mechanical and bath stability.

### **Uses**

Easily usable in knit and woven fabrics by exhaust and padding method. Suitable for cotton & synthetic fibre and can be applied for resin finishing.

### **Characteristics**

Suitable for all fabrics and having permanent softness with very good smooth surface by exhaust and padding method.

It is compatible with resin and catalyst, improves scouring effect.

No oil spot and gum up.

Less colour changing and colour dropping of dyestuffs.

Benefits Good compatibility to another finishing agents. Longer softening effect with better wear ability. Can be used universally.

### **Properties**

Composition	: Special amino modified silicone.
Appearance	: Clear Liquid.
Ionic Character	: Nonionic /Slight cationic.
Suitable Dilute	: Easily soluble in cold and warm water.
pH	: About 5
Storage Stability	: Life time about 1 year under storage condition of 0°C ~ 30°C.
Application	: The following recommendation may treat as a guide : 0.5~1.5 g/l.



Customer Information

## Textile Softener (Intersoft –PG)

Dyeing Auxiliary

### **Intersoft -PG**

Excellent Softener for all fibres and having permanent softness with very good smooth surface.

### **Uses**

Softening agent for pad and exhaust application for all fibres.

### **Characteristics**

Suitable for all fabrics and having permanent softness with very good smooth surface by exhaust and padding method. Compatible with most optical brighteners. Can be applied to acrylic in the dyeing process. Excellent handle. Almost no increase of soiling.

### **Benefits**

Longer softening effect with better wear ability. Can be used to produce extremely soft dyes, printed and white goods. Flexible application routes. Excellent easy care properties.

## **Properties**

Composition	: Aliphatic condensation product.
Appearance	: White liquid.
Ionic Character	: Cationic.
Suitable Dilute	: Intersoft - PG is stable to slight acid to neutral medium PH-Values above 8 should be avoided.
pH (10 g/l)	: 4.0

## **Dissolving /Diluting**

Intersoft –PG can be easily diluted with water at room temperature.

Application : The following recommendation may treat as a guide :-  
Required Amount :

Exhaust Method : 0.5~3% o.w.f Intersoft –PG  
Pad application : 5~60 g/l Intersoft -PG

## **Exhaust Method :**

Application Amount : 0.5~3% o.w.f Intersoft –PG  
pH : 5.0~5.5 (adjusted with acetic acid 60%)  
Liquor ratio : 1.5~1.20  
Time : 15~20 min  
Temperature : 30~40° C  
Extract water and dry at 110~130° C without rinsing process.

## **Pad application continuous process**

Padding with a liquor pick-up of 60~80 %  
Bath temperature : about 20° C  
Drying : 110~130° C

Intersoft-PG is an excellent softener for articles containing all fibre types. The application level depends on the fibre and the desired level of effect.

Storage Stability : Life time about 1 year under storage condition of 0° C ~ 30° C.

**Caution** : **The usual hygiene and safety rules for handling chemicals should be Observed in storage, handling and use. The products must not be Swallowed.**



## Textile Softener

LUBRICANT INTERSOFT - CH - 100

CHEESE OILING AGENT FOR COTTON YARN

**Lubricant Intersoft -CH-100** has been newly developed for cotton and polyester/ cotton in White and colored articles. It exerts excellently softer / lubricant for cotton and it's blended yarns. It's very effective in non-fix fiber of yarns.

### ※ Properties

- Appearance : Milky White Emulsion  
Composition : Special mixture of nonionic activators and high  
Melting point wax emulsion.  
pH : About 5  
Solubility : Easily emulsified in cold water

### ※ Application

- (1) It imparts suppleness of adequate degree and high lubricity to Cotton and blended yarns.
- (2) It is suitable for use on cotton yarn. It will not leave the inner and outer Layers of yarn unevenly loaded.
- (3) It has a high emulsification and dispersion stability and it's an Excellent resistance to alkali and inorganic salts.
- (4) It has a discoloration and reduction of color fastness negligible.
- (5) It may be successfully applied in the same bath as fluorescent dyes without giving any adverse affect to the fluorescent.

### ※ Method of use

The optimum quantity of Lubricant Intersoft - CH - 100 to be used varies with the type and conditions of the yarn to be treated and the treating method adopted, but as the standard, the use level of from 1~3% o.w.f at 45~55° for 15~20 mins.



## Textile Softener

### Intersoft - CHW (Specially White Color)

**Intersoft –CHW (Specially White Color)** has been newly developed for cotton and polyester/ cotton in white and colored articles. It's also excellent work specially for Knit Dying. It exerts excellently softer / lubricant for cotton and its blended yarns. It's very effective in non-fix fiber of yarns.

#### ✘ Properties

- Appearance : Milky White Emulsion  
Composition : Special mixture of nonionic activators and high Melting point wax emulsion.  
pH : About 5  
Solubility : Easily emulsified in cold water

#### ✘ Application

- (1) It imparts suppleness of adequate degree and high lubricity to Cotton and blended yarns.
- (2) It is suitable for use on cotton yarn. It will not leave the inner and outer Layers of yarn unevenly loaded.
- (3) It has a high emulsification and dispersion stability and it's an Excellent resistance to alkali and inorganic salts.
- (4) It has a discoloration and reduction of color fastness negligible.
- (5) It may be successfully applied in the same bath as fluorescent dyes without giving any adverse affect to the fluorescent.

#### ✘ Method of use

The optimum quantity of Intersoft - CHW (Specially White Color) to be used varies with the type and conditions of the yarn to be treated and the treating method adopted, but as the standard, the use level of from 1~3% o.w.f at 45~55o for 15~20 mins.



## Hydrochloride Softener

### Intersoft HCS

Intersoft HCS is hydrochloride softener for cellulose fibre, especially for terry goods, underwear and sportswear that require a good absorption. It is anti-static softener for synthetic fibre.

#### \* Properties

Appearance	:White Liquid
Composition	:Fatty acid condensation product
Ionic character	:Weakly Cationic
Solubility	: Esily soluble in cold and warm water.

#### \* Characteristics

- 1) It imparts good soft handle and absorption.
- 2) It is low-foaming. It can also be applied on the jet after bleaching or dyeing.
- 3) It can only be applied in resin finishing liquors if the finishing recipe contains neither anionic auxiliaries nor optical brightener.

#### \*Method Of Application

##### A) Exhaust process

Intersoft HCS	: 1~3% owf.
pH adjust	: 5~6
Temperature	:20~40 mins

##### B) Pad process

Intersoft HCS	:10~30 g/l
Temperature	: 160°C

Intersoft HCS Can be applied on white goods if the drying temperature do not exceed 160°C.



## Mergerizing Oil (Interpol-CHD)

Dyeing Auxiliary

### **Interpol-CHD**

Very good wetting & penetrating agent for the use during mergerizing of cotton fibre, clearly dissolves in 22 to 30 Be` caustic soda and excellently improves penetrate-ability without giving bad influence to the mergerizing process.

### **Uses**

As stable in caustic soda, it works efficiently to improve penetrating ability for the absorbency of cotton fibre without any bad influence to the mergerizing process. Easily dissolves in caustic soda solution. Very good activity of surface.

### **Benefits**

Has good penetrating ability to cotton fibre. Reduce surface tension and interface tension.

## Properties

Appearance : Yellowish transparent liquid.  
Ionic Character : Anion.  
Suitable dilute : Highly stable in hard water and alkali.  
PH :  $11 \pm 1$   
Application : Depend on the type and state of the material being treated and  
Concentration of caustic soda adopted but standard amount is 2.5  
g/l~10 g/l.

### [Test method]

caustic soda x% soln.  
Penetrating agent 4g/l  
Temperature 50°C

### [Results obtained]

	Caustic soda Con. (% soln)	Soon	After 10 sec.	After 30 sec.
Interpol-CHD		120		
Rival A	18	120	0	0
Rival B		25		
Interpol-CHD		75		
Rival A	20	40	0	0
Rival B		35		
Interpol-CHD		30		
Rival A	22	35	0	0
Rival B		30		
Interpol-CHD		20		
Rival A	24	25	0	0
Rival B		20		



2. Stability of caustic soda solution test

[ Test method]

Caustic soda            x % soln.  
 Penetrating agent    4g/l  
 Temperature            Room Temp.

[Results obtained]

	Caustic Soda (% soln.)			
	18	20	22	24
Interpol-CHD	0	0	0	0~△
RIVAL A	0	0	0~ △	△
RIVAL B	0	X	X	X

0 -----stable      △ -----cloudy but stable                      x-----separate

3. Penetrate -ability Test

[Test method]

materiel                      cotton medias grey  
 caustic soda                X % soln.  
 Penetrating agent        4 g/l  
 Temperature                Room Temp.

[Results obtained]

	Caustic Soda (%soln.)			
	18	20	22	24
Interpol-CHD	5	5	6	7
Rival A	6	7	7	9
Rival B	4	5	9	9

**Caution**                      : **Should be observed in storage, handling and use. The product  
 Must not be swallowed. For further information, please see the  
 Safety Data Sheet.**

**Storage stability**            : **life time 1 year under storage temperature condition of 0°C~30°C**



Customer Information

## **Enzyme (Intersol-ESW)**

Dyeing Auxiliary

### **Intersol-ESW**

Stabilized bacteria amylase for enzymatic Desizing of fabrics with starch-containing sizes .

### **Uses**

Starch-containing sizes are decomposed selectively to water-soluble maltose and glucose, and consequently easily removable by washing.

Intersol-ESW has a wide range of application. It is applicable at temperatures from 60 to 70° C and in the pH range from 5 to 9.5.

Intersol-ESW is applied by pad batch, pad roll, pad steam and by hot continuous and discontinuous processes.

Soft and hard water can be used for the desizing bath, Addition of salt is not necessary.

The special complexing agent Interpol-Jet combined with Intersol-ESW increases the safety and the reproducibility of the whole pretreatment process. By removing catalytic active impurities the risk of fibre damage during bleaching is reduced and an additional cleaning effect is obtained simultaneously.

### **Characteristics**

High enzyme activity for the selective degradation of starch sizes. Applicable in all impregnation and discontinuous processes, at cold and high temperatures. Salt additions such as NaCl or CaCl<sub>2</sub> are not necessary. High stability to soiling and impurities such as fat, waxes, singeing residues and size additions. Applicable in a wide pH range (pH 5-9.5) with an optimum pH 7-8.5 Liquid, pumpable product, dilatable with cold or hot water.

## **Benefits**

Simple removal of the solubilized sizes under optimal fibre protecting conditions. All-round application, reduces storekeeping. One product covers all processes and temperature ranges. Simple recipe with a small number of components, simplification of initial bath and feed bath preparation. Excellent and even desizing effects. No loss of effects by partial enzyme inactivating action. High processing security, pH check is not necessary. Simple handling, no risk of allergic irritations, as it may happen when inhaling dust (powder products).

## **Properties**

Composition : Stabilized bacteria amylase.

Appearance : Yellowish -brown liquid

pH : About 7 (1% solution)

Specify Gravity at 20°C: about 1.1 g/cm<sup>3</sup>

Caution : The usual hygiene and safety rules for handling chemicals should be observed in storage, handling and use. The products must not be Swallowed.

Application : The following recommendation may treat as a guide :

2~6 g/l Intersol-ESW

**Storage stability : Lifetime 1 Year under storage temperature  
Condition of 0° ~ 30° c.**



Customer Information

## Biopolish Enzyme (Intersol-EZ-CA)

Dyeing Auxiliary

### Intersol-EZ (CA)

#### Description

INTERSOL-EZ (CA) is a new engineered component neutral cellulase specifically designed to be formulated into products used in premium, high-contrast denim finishing. The concentrated granular enzyme product operates over a wide range of pH and perature.

Shanghi Liantan uses state-of-the art biotechnology production methods and this product contains an enzyme produced by a genetically modified organism. The enzyme is produced by a natural process and is biodegradable.

#### Advantages

**High Contrast Look.** INTERSOL-EZ (CA) provides a high contrast, low back stain look. The contrast between the warp and fill is high. The low Back staining requires fewer chemicals for clean up.

**Broad PH Capability .** The broad PH response of INTERSOL-EZ (CA) is a key advantage for processing flexibility. Less PH control is required by the processor to achieve consistent abrasion performance.

**Broad Temperature Capability .** The operational range for this enzyme offers processing flexibility with resulting garment consistency. The processor can operate at typical temperatures and benefit from energy savings. Comparable abrasion performance (within one abrasion unit) can be achieved from 45° C to 55°C at PH 6 to 8.

**High Linear Dose Response.** INTERSOL-EZ (CA) has an efficient dose response. A high level of abrasion is achieved more quickly and with less enzyme than conventional neutral cellulose's. Even at higher doses, the enzyme responds with a proportionate amount of abrasion. A wide range of abrasion from low to hi is easily achieved with of without stones.

**Compatible with Auxiliary Chemicals.** INTERSOL-EZ (CA) is compatible with most other processing aids, including nonionic surfactants, wetting agent and dispersants, pumice stones, and diatomaceous earth, Compatibility should be checked to determine the impact on enzyme performance and stability.

**Stability,** Liantain's new proprietary granulation technology, with Enzoguard coating, shields this enzyme against high humidity and temperature. This coating reduces the tendency for clumping and agglomeration of particles exhibited by many other solid enzyme products.

**Safety,** INTERSOL-EZ (CA) granules are virtually non-dusting and much safer to blend and use than powdered enzymes.

### **Applications**

INTERSOLEZ (CA) is used in garment finishing processes to create a fashionable, faded, high contrast look. The enzyme provides abrasion, which partially removes color and provides a softer handle.

### **TYPICAL CHARACTERISTICS**

Activity: 3000 NPCN units/g (minimum)

Appearance: Spherical, off-white free flowing granules.

The activity of INTERSOLEZ (CA) is expressed in NPCN units and is determined against an internal standard. The activity units from one-assay results of two different enzymes using the same method are not predictive of relative performance. Assay tests are effective only for ensuring lot -to-lot consistency.

## **PROCESS CONDITIONS**

**Desizing**, Proper and complete desizing is required for consistent performance. Liantan amylase products are recommended for the removal of starch sizing materials.

Parameter	Optimal Range	Operational Range
PH	5	4.5~5.5
Temperature	45~55 °C	40~60°C

**PH and Temperature** . INTERSOL-EZ (CA) perform consistently over broad pH and temperature ranges. At my given temperature from 40°C to 60°C , the abrasion response is the same from pH 5 to 7 . Optimum abrasion will not be achieved above PH 8 to 60° C.

The optimal temperature range of INTERSOL-EZ (CA) provides processing flexibility for achieving consistent abrasion perform ance and energy savings. The formulator may operate at lower temperatures or at temperatures of other conventional neutral cellulases

INTERSOL-EZ (CA) has a broad and flat PH profile. AT 55° C, abrasion differences are insignificant from PH 5 to 8 . The broad PH profile reduces potential sources of variations in gram ents if pH is not well controlled.

### **DOSAGE GUIDELINES**

INTERSOL-EZ (CA) is highly concentrated and may be used at low dosages. The recommended dose range for treatment of denim garments is 0.5 to 2% OWG. It is recommended that the optimal dosage and conditions for the desired effect be determined by experimenting with a small amount of fabric and garments.

### **ENZYME INACTIVATION**

Perform one of the following after the abrasion step to ensure enzyme inactivation.

- A. hold the bath at PH> 9.5 for 5 minutes. Adjust PH with soda ash or an alkaline detergent.
- B. Elevate temperature to > 65°C for 5 minutes.
- C. Elevate temperature to >65°C and raise the PH to 9.5 and wash for 5 minutes.
- D. Add chlorine bleach and hold for 5 minutes.

### **STORAGE**

To ensure extended shelf life, store Intersol-EZ(CA) at 25°C (77°F) or below in a sealed container. Exposure of this product to elevated temperature and / or humidity levels will result in a loss of activity.

### **SAFETY & ENZYME HANDLING**

Inhalation of enzyme dust and mists should be avoided .In case of contact with the skin or eyes. Promptly rinse with water for at least 15 minutes.





Customer Information

## De-sizing Agent (Intersol-XB)

Dyeing Auxiliary

### **Intersol-XB**

De-sizing agent based on bacterial alpha amylases and are applied to degrade the following sizing agents and their combinations :-

Starch, starch/polyvinyl alcohol, starch/ acrylate, starch/polyvinyl alcohol/carboxymethyl-cellulose, starch/polyvinyl alcohol/acrylate.

### **Uses**

Sizes are decomposed to water soluble maltose and glucose and hence easily removed by washing, Easily used by hot continuous and discontinuous processes.

### **Characteristics**

Stable and active in the alkaline region up to pH 9.  
More active at higher temperatures than lower ones.

### **Benefits**

The advantage of de-sizing in the alkaline region in that the cotton waxes and fats are already partially emulsified and can be removed more easily.

Improves the absorbency.

Continuous, semi-continuous or discontinuous processes can be applied.

### **Properties**

Appearance : Dark brown liquid.

Chemical Character : Enzyme stains based on stabilized bacterial amylases in a buffered Medium.

Suitable dilute : With cold water in any proportion.

- PH : Acid good to pH 5 and Alkaline about pH 9.
- Storage Stability : Life time 1 year under storage temperature condition of 0°C~30°C.
- Stability in : Hard water : good , calcium ions promote the activity of the Enzyme :
- Compatibility with : Catalysts - Iron and copper ions are enzyme poisons.  
: Non-ionic wetting agents -very good in generally.  
: Anionic wetting agents -selective; some may reduce the Activity of the enzyme.  
: Organic sequestrates -good general  
: Reducing/Oxidizing -reduce the activity.
- Application : The following recommendation may treat as a guide :-  
1. De-sizing at 60~70°C : 4~6 g/l.  
2. Continuous de-sizing : 2~3 g/l
- Caution : Should be observed in storage, handling and use. The product Must not be swallowed. For further information, please see the Safety Data Sheet.**



Customer Information

## Acid buffer for PES and WO fibers (Interpol-4.5-Acid Buffer)

Dyeing Auxiliary

### **Interpol-4.5 (Acid Buffer)**

Excellent leveling agent for polyester dyeing with disperses dyes at all stages of processing in HT processes on jets and circulating liquor machines.

### **Uses**

When applied on polyester in high temperature, high-pressure dyeing increases the solubility of disperses dyes and improves leveling. Interpol-45 (Acid Buffer) is recommended for pH sensitive dyes. Interpol-4.5 (Acid Buffer) can also be used for dyeing of any fiber where pH 4.5 is required.

### **Characteristics**

Good buffer capacity and no problems with correct pH measurement. Non-foaming. No extra addition of acid required adjusting the pH and no impact on fastness.

### **Benefits**

Suitable for jets. Easy and safe handling. No pH change through electrolytes and added substances to the dye bath. No impact on pH through impurities of the fiber or water. Robust dyeing system "Right First time" hence cost savings.

## Properties

Composition	: Organic acid ad salts.
Appearance	: Clear colorless to slightly yellowish liquid.
Specific Gravity at 20° C	: About 1
Ionic Character	: Anionic
Suitable dilute	: Easily soluble in hard water, to acids, to alkalis and Electrolytes in usual amounts.
pH of 5% solution	: 3.5 to 4.5

## Application

### Required Amount for PES fibers :

Interpol-4.5 (Acid Buffer ) is a complete acid dyeing buffer and no further acid needs to be used. The required amount depends on various factors (e.g. amount of dyes, water, additional chemicals) but will normally lie within the limits given below. Preliminary trials should be carried out.

**1.0 ~2.0 g/l Interpol -4.5 (Acid Buffer)**

### Required Amount for WO Fibers (Acid Dyes) :

The required amount depends on various factors e.g kind of wool and its alkalinity or acidity, amount of dyes, water, additional chemicals and also on liquors ratio (see also under notes).

**3.0~5.0 g/l Interpol-4.5 (Acid Buffer)**

Caution : The usual hygiene and safety rules for handling chemicals Should be observed in storage, handling and use. The products Must not be swallowed.

Storage stability : life time 1 year under storage temperature condition of 5°C~40°C



Customer Information

## Dispersing and Leveling Agent for polyester Dyeing (Interpol-XLF)

Dyeing Auxiliary

### **Interpol-XLF**

Excellent dispersing and leveling agent for polyester dyeing and printing with disperse dyes.

### **Uses**

When applied on polyester in high temperature, high pressure dyeing increases the solubility of disperse dyes and improves leveling.

### **Characteristics**

Excellent about promoting the migration and retarding effect.  
Low foam dispersing agent.  
Promotes the solubility of dyestuffs.  
No tarring and line spot effect.  
Improves penetration and level dyeing on polyester.  
Good stripping effect at higher concentrations and can be used for stripping also. Quickly removes unfixed dyes in the washing - off process.

### **Benefits**

Very good leveling and anti foaming effect. Does not make tar and oligomer . Has very good fastness properties. No effect on shade, can be used in thermosol process.

## Properties

Appearance	: Slight yellow transparent liquid.
Specific Gravity	: 1.05
Ionic Character	: Non-ionic.
Suitable dilute	: Easily soluble in cold water.
PH	: 7~8
General Stability	: Stable in hard water, alkali and acids.
Application	: The following recommendation may treat as a guide: - For leveling: 0.3 ~1.0 g/l For lightening: 4~10 g/l
Caution	: Should be observed in storage, handling and use. The product Must not be swallowed. For further information, please see the safety Data Sheet.
Storage Stability	: life time about 10 months under storage Temperature condition of 0°C ~30°C.



Customer Information

## **Cracking Agent (Interpol-MF)**

Dyeing Auxiliary

### **Interpol-MF**

#### **Uses**

Interpol -MF is a multi-functional Agent to optimize the pretreatment washing processes after alkaline pretreatment processes such as mercerizing, alkaline cracking, peroxide, bleaching.

#### **Characteristics**

Interpol-MF contains special acidic components. Complexing / dispersing power with threshold effect. Interpol-MF is not volatile, does not develop any odour and is free of mineral acids and surfactants. Liquid, pumpable formulation, miscible with water, without phosphorous.

#### **Benefits**

It is remove unfix dye of yarn /fabrics and it makes the yarn more strong. Removal of residual alkali and core neutralization of the textile goods to enhance the quality and reproducibility of the subsequent processing steps. The pH values on the stored material remains constant .Avoidance of the formation of neutralization salts which can disturb the subsequent dyeing, printing and finishing. Avoidance of yellowing of FWA treated material Through final cleaning of the textile goods and machine parts. The cleaned goods ensure a trouble free dyeing and the corresponding low conductivity levels are beneficial for an optimal printing result .Can be added at the end of the washing range without danger of corrosion in machines such as stenters. No risk of fiber damage .The products does not foam and gives no artificial re-wetting properties. Simple handling, ideal for automatically pH controlled dosing .Environmental friendly.

## **Properties**

Composition : Preparation based on special organic acids.  
Appearance : Liquid.  
Ion : Anionic  
Suitable dilute : Cold water  
pH (10% solution) : <2  
Spetic Gravity at 20°C : about 1.2 g/cm<sup>3</sup>

Caution : The usual hygiene and safety rules for handling chemicals should be Observed in storage, handling and use. The products must not be Swallowed.

Application : The following recommendation may treat as a guide :

Continuous Washing range :  
A concentration of about 0.5% Interpol-MF can serve as a rough Guideline.

Discontinuous Process:

A Concentration of about 0.2~0.5 g/l

**Storage stability : Lifetime 1 Year under storage temperature  
Condition of 0° ~ 30° c.**





## KBC-Dye Acid SP

### An Organic Compound Dye acid replacing Acetic Acid

#### 1. Properties

- Appearance : Colorless transparent Liquid.
- PH Valu(1% sol) :  $2.5 \pm 0.2$
- Main Component : Organic acid compound.
- Storage : Good storability.

#### 2. Features

KBC-Dye acid SP can replace many kinds of dyeing acids such as acetic acid, formic acid, sulfuric acid, ammonium sulfate etc.

Lower COD and BOD value.

Economical.

The buffer effect is excellent, unnecessary to use other buffers.

No bad influence on the color shades and absorbability of dyes.

#### 3. Application

The following table offer some reference for user.

<b>KBC Dye acid SP</b>		
<b>Usage Quantity</b>	<b>PH Value</b>	<b>PH Value after boiling 30 min</b>
1.4	2.9	3.0
0.35	3.47	3.45
0.2	3.96	4.0
0.18	4.41	4.45
0.15	4.98	5.04
0.12	5.5	5.6

## HAC

Usage Quantity	PH Value	PH Value after boiling 30 min
5.0	2.94	3.2
1.2	3.45	3.6
0.36	3.95	4.2
0.14	4.45	4.8
0.09	5.03	5.4
0.06	5.52	5.7

- The PH value of water is 7.9

The information and data in this bulletin are based on accurate laboratory researches and are intended for your guidance. We cannot, however, accept any responsibility for the results obtained, in view of the numerous factors of applications are beyond our control. Our guarantee is limited to the unvarying quality of our products.



## Interdol-AN

Interdol- AN conc is a true leveling agent for the dyeing polyacrylonitrile fibers with cationic dyes.

### 1. Properties

Appearance	: Water-white liquid
Ionic Activity	: Cationic.
PH Value	: Slightly Alkaline.
Main Component	: Special Cationic Surfactant.
Solubility	: Easily Dilatable with cold water.
Storage	: Good Storability.

### 2. Features

Interdol-AN conc is a true leveling agent. It does not block dye sites and therefore does not decrease dye exhaustion.

Since Interdol AN conc shows excellent migrating effect, therefore, shortening dye cycles can be expected.

Interdol-AN conc makes no bad influence on the color shade of Acrylic fiber,

Interdol-AN conc has high penetrating properties to improve leveling effect, so cheese dyeing is not difficult.

Interdol-AN conc is highly effective for repair of unlevel goods.

### 3. Application

When dyeing acrylic fiber with cationic dyes, the following additions are recommended:

Light shade	: 2% owf Interdol AN conc
Medium shade	: 1~2% owf Interdol-AN conc
Heavy shade	: 0.5~1% owf Interdol-AN conc

For repair of uneven dyeing.

2~4% owf Interdol-AN conc are necessary for 30 mins ~1 hour at the boil.

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## Interdol-PAN

### Cationic retarder for dyeing Acrylic fiber

#### 1. Properties

Appearance	: Light amber liquid.
Ionic activity	: Cationic.
pH value (1% sol.)	: 5.5~6.5.
Main Component	: Amine derivate.
Solubility	: Easily dilatible with cold water.
Storage	: If exposed to temperatures below 10°C for long periods. Interdol- PAN may freeze. If this occurs, allow to thaw at room temperature and mix well before using.
F-value	: 0.55~0.6.

#### 2. Features

Interdol-PAN is an economical retarder for dyeing acrylic fiber.  
Interdol- PAN provides the retardation required for perfect even result especially for the fibers with a high saturation value for cationic dyes.  
Interdol- PAN exhibits stronger penetrating effect and low foam properties.

#### 5. Application

The quantity of Interdol-PAN required depends on the DC value, f~value of retarder, F~value of fibers and dye concentration. The following formulation offer a simple method to estimate exact quantity of Interdol PAN ,

Note : Too much amount of Interdol PAN may cause bad absorbability of dyes.

The quantity of Interdol PAN =  $\frac{\text{F-value of fibers} \times \text{DC-DX}}{\text{f-value of Interdol PAN}}$

Dx is f-value of dyes x x% of dyes.

DC =70%~80%

When stripping and leveling out faulty dyeing, carried out in a long liquor with the addition of 2~4% owf Interdol PAN and x% dyes.

Test method of retarding power half dyeing method

The retarding power can be easily estimate by following recipe :

Acrylic yarn (F=2.1) 4gm

Taiacryl Blue RGN-T 100% (CL Basic Blue 41) 0.5% owf

Retarding agent 4% owf

PH=4.5 boiling 20min

Result : The highly up-take means the weaker retarding power, the reverse is stronger.

The information and data in this bulletin are based on accurate laboratory researches and are intended for your guidance. We cannot, however, accept any responsibility for the results obtained, in view of the numerous factors of applications are beyond our control. Our guarantee is limited to the unvarying quality of our products.



Customer Information

## Leveling agent for wool and nylon (Interpol-BWS)

### Properties

- Appearance: Brown Transparent liquid
- Composition: Alkyl amine derivatives
- Ionic: Nonionic and anionic
- PH range:  $7 \pm 1$
- Solubility: Easily soluble in cold water

### Characteristics

- Promotes an acid dyes-dispersion and gives an excellent leveling effect to the wool and nylon fabrics.
- On account of its low foaming property no trouble occurs in this respect.
- It causes hardly ever tarring phenomenon because of the excellent dye-dispersion.
- When dyeing pale shade, in general, some leveling agents may sometimes occur discoloration an un-leveling, but it does not show them.
- It has an adequate retarding property; it promotes the leveling and assists in easy color matching.

### Application

Add 1.0 - 2.0% owf of it into the dye-bath adjusted to pH 4.0 - 5.5 and then dye at 95~100°C for 30~60 minutes.



# **KBC-Binder-2000**

FOR PIGMENT PRINT

## **\* CHEMICAL AND PHYSICAL SPECIFICATIONS**

- Appearance ----- white emulsion
- pH -----  $8 \pm 1$
- Viscosity ----- 100 cps ↓
- Ionic character ----- Nonion

## **\* APPLICATION**

KBC-Binder-2000 FOR PIGMENT PRINT is a good binder for printing with a good resistant from RC and Finishing agent. KBC-Binder-2000 FOR PIGMENT PRINT very dry in a normal condition(room temperature).

For used, not mixed with any chemical, just singe. But if we want any viscosity, we can just add special Thickener.

## **\* MAIN ADVANTAGES**

Excellent adhesive.  
Very good color yield.  
Easy handling before fixation.  
Very good mechanical and chemical stability.  
Resistant in HT and HP steamer.  
Economic.