

## SCREEN PRINTING

# CLEANING SOLVENTS

### RANGE OF CLEANING SOLVENTS

For many years, TIFLEX has marketed a whole range of cleaning solvents, with varying degrees of volatility and labelling.

However, for reasons of toxicity, user safety, regulations or environmental concerns, many of our customers are asking us for «cleaner» solvents.

In response to these concerns, TIFLEX has completely revised its range of cleaning solvents. Each solvent has its own physico-chemical characteristics and field of effectiveness. A choice must be made according to the priorities sought.

The technical manual for each of our inks suggests the solvent references best suited to the range concerned.



## **•** HOW TO CHOOSE YOUR CLEANING SOLVENT?



- With or without aromatic compounds? What is the desired flash point?
- Manual use or in a washer?
- Distillation: yes/no, at atmospheric pressure, under vacuum?
- What ranges of inks are used? Please note, there is no such thing as a universal solvent.
- Low VOC content? Be careful, this requirement calls for a very greasy product.
- Odor level.

Abandoning a solvent that is highly effective, dry, often has a very low flash point, contains aromatic hydrocarbons, and has restrictive labelling is a genuine environmental initiative. Our laboratories remain at your disposal for any advice or further information on this subject.

#### **CLEANING SOLVENT NS-85**

NS-85 is an unlabelled, multi-purpose cleaning solvent.

Formulated without aromatic hydrocarbons.

NS-85 is a greasy, low-volatility solvent. After use, dry your equipment or rinse it with a volatile solvent (e.g. NS-55).

This solvent is effective on UV inks and some of our SOLVANT inks.

For manual use or in automatic screen cleaning unit (check the minimum flash point required for your washer).

#### **Technical specifications:**

■ Flash point: 64°C

■ Distillation interval: 160 - 190°C

■ VOC: 866,68 g/liter

■ Odour:low

Efficiency range: UV inks, Solvent inks

Labeling: No labeling

#### **CLEANING SOLVENT 4895**

4895 is a pulti-purpose cleaning solvent.

Formulated without aromatic hydrocarbons.

Solvent 4895 is a dry solvent with a low flash point. It dries quickly.

This solvent is effective on UV inks and some of our SOLVENT inks.

Suitable for automatc screen cleaning unit.

#### **Technical specifications:**

■ Flash point: -6°C

■ Distillation interval: 80 - 150°C

■ VOC: 800,72 g/liter ■ Odour: medium

Efficiency range: UV inks, Solvent inks

Labeling:







#### **CLEANING SOLVENT NS-95**

NS-95 is a cleaning solvent formulated without aromatic hydrocarbons.

Good compromise between volatility and flash point above 23°C.

This solvent is effective on UV inks and some of our SOLVENT inks.

For manual use or in automatic screen cleaning unit (check the minimum flash point required for your washer).

#### **Technical specifications:**

■ Flash point: 35°C

■ Distillation interval: 120 - 170°C

■ VOC: 857,55 g/liter ■ Odour: medium

Efficiency range: UV inks, Solvent inks

Labeling:





#### **CLEANING SOLVENT 2895**

2895 is a versatile cleaning solvent.

Formulated without aromatic hydrocarbons.

Solvent 2895 is a dry solvent with a low flash point. It dries quickly.

This solvent is effective on UV inks, plastisol inks and most SOLVENT inks.

Suitable for automatc screen cleaning unit.

#### **Technical specifications:**

■ Flash point: -6°C

■ Distillation interval: 70 - 120°C

■ VOC : 805,69 g/liter■ Odour : medium

Efficiency range: UV inks, Solvent inks, Plastisol inks





#### **CLEANING SOLVENT NS-55**

NS-55 is a versatile cleaning solvent.

Formulated without aromatic hydrocarbons.

NS-55 is a dry, highly volatile solvent. It evaporates rapidly without residue.

This solvent is effective both as a cleaning solvent and as a rinsing solvent for removing greasy solvent residues.

Suitable for automatc screen cleaning unit.

#### **Technical specifications:**

■ Flash point: -4°C

■ Distillation interval: 70 - 80°C

■ VOC: 903,00 g/liter■ Odour: strong

Efficiency range: UV inks, Solvent inks, Plastisol inks

#### Labeling:





#### **CLEANING SOLVENT NS-81**

#### NS-81 is a versatile cleaning solvent.

Formulated without aromatic hydrocarbons. Non-emulsifiable, NS-81 leaves no residues after evaporation.

Good compromise between volatility and efficiency for maximum versatility. *This solvent is effective on UV inks and some of our SOLVENT inks.* 

For manual use or in automatic screen cleaning unit (check the minimum flash point required for your washer).

#### **Technical specifications:**

■ Flash point: 57°C

■ Distillation interval: 165 - 190°C

■ VOC: 950,62 g/liter ■ Odour: medium

**Efficiency range :** UV inks, solvent inks except our PROPYLUX inks.

#### Labeling:





#### **PLASTISOL SOLVENT**

This solvent has been developed for cleaning PLASTISOL inks. It is GOTS V7 approved. Formulated without aromatic hydrocarbons.

Plastisol Solvent is a low-volatility, fatty solvent. After use, dry your equipment or rinse with a volatile solvent (e.g. NS-55).

This solvent is highly effective on DREAMFLASH inks. It is also suitable for HIMALAYA, CREA and FLASHCOLOR inks.

For manual use or in automatic screen cleaning unit (check the minimum flash point required for your washer).

#### **Technical specifications:**

■ Flash point: 78°C

■ Distillation interval : > 200°C

■ VOC: 689,54 g/liter

■ Odour:low

Efficiency range: Plastisol inks

#### Labeling:







#### **CLEANING SOLVENT NS-91**

#### NS-91 is a versatile cleaning solvent.

Formulated without hydrocarbons. Being non-emulsifiable, NS-91 solvent leaves no residues after evaporation.

Good compromise between volatility and efficiency for maximum versatility. *This solvent is effective on UV inks and some of our SOLVENT inks.* 

For manual use or in automatic screen cleaning unit (check the minimum flash point required for your washer).

#### **Technical specifications:**

■ Flash point: 34°C

■ Distillation interval: 120 - 150°C

■ VOC: 926,01 g/liter ■ Odour: medium

**Efficiency range:** UV inks, solvent inks except our PROPYLUX inks.







#### **CLEANING SOLVENT NS-99**

NS-99 is an effective but less general-purpose cleaning solvent than NS-81 and NS-85.

Formulated without aromatic hydrocarbons.

NS-99 is a greasy, low-volatility solvent. After use, dry your equipment or rinse with a volatile solvent (e.g. NS-55).

This solvent is ideal for EPOXY EV and CELLULOSIC STJ inks.

For manual use or in automatic screen cleaning unit (check the minimum flash point required for your washer).

#### **Technical specifications:**

■ Flash point: 73°C

■ Distillation interval: 170 - 220°C

VOC: 777,48 g/literOdour: strong

**Efficiency range:** UV inks, solvent inks except our PROPYLUX inks.

Labeling:



#### **CLEANING SOLVENT 2891**

2891 is a versatile cleaning solvent.

Formulated without aromatic hydrocarbons.

Solvent 2891 is a fast-drying «dry» solvent.

This solvent is effective on UV inks, plastisol inks and some of our SOLVENT inks.

Suitable for automatc screen cleaning unit.

#### **Technical specifications:**

■ Flash point: -6°C

■ Distillation interval: 80 - 125°C

■ VOC: 893,87 g/liter ■ Odour: medium

 ${\bf Efficiency \, range:} \, {\it UV inks} \,, {\it Solvent \, inks}, {\it Plast is ol \, inks} \,$ 

Labeling:







#### **CLEANING SOLVENT 2881**

#### 2881 is a versatile cleaning solvent.

Solvent 2881 is a good compromise between volatility and a flashpoint above 23°C.

This solvent is highly effective on most of our our ink ranges.

For manual use or in automatic screen cleaning unit (check the minimum flash point required for your washer).

#### **Technical specifications:**

■ Flash point: 38°C

■ Distillation interval: 120 - 170°C

■ VOC: 903,20 g/liter ■ Odour: medium

Efficiency range: UV inks, Solvent inks, Plastisol inks

Labeling:









#### **CLEANING SOLVENT 2899**

#### 2899 is a versatile cleaning solvent.

Solvent 2899 is a good compromise between volatility and a flashpoint above 23°C.

This solvent is highly effective on most of our our ink ranges.

For manual use or in automatic screen cleaning unit (check the minimum flash point required for your washer).

#### Technical specifications:

■ Flash point: 32°C

■ Distillation interval : 120 - 170°C

■ VOC : 901,16 g/liter ■ Odour : medium

Efficiency range: UV inks, Solvent inks, Plastisol inks









#### **CLEANING SOLVENT 4881**

4881 is a versatile cleaning solvent.

Solvent 4881 is a fast-drying «dry» solvent.

This solvent is effective on UV inks and most most SOLVENT inks.

Suitable for automatc screen cleaning unit.

#### **Technical specifications:**

■ Flash point: -4°C

■ Distillation interval: 80 - 125°C

■ VOC: 868,54 g/liter

■ Odour: low

**Efficiency range :** UV inks , Solvent inks

Labeling:









#### **CLEANING SOLVENT 4891**

4891 is a versatile cleaning solvent.

Formulated without aromatic hydrocarbons.

Solvent 4891 is a fast-drying «dry» solvent.

This solvent is effective on UV inks and most most SOLVENT inks.

Suitable for automatc screen cleaning unit.

#### **Technical specifications:**

■ Flash point: -4°C

■ Distillation interval : 80 - 125°C

■ VOC: 878,75 g/liter ■ Odour: medium

Efficiency range: UV inks, Solvent inks









| CHARACTERISTICS OF CLEANING SOLVENTS |   |   |   |   |
|--------------------------------------|---|---|---|---|
|                                      | NS-85   | 4895  | NS-95   | 2895  |
| Solvents                             | Réf. 5 L : 3024070<br>Réf. 25 L : 3026070<br>Réf. 200 L : 3028070 | Réf. 5 L : 3024000<br>Réf. 25 L : 3026000<br>Réf. 200 L : 3028000 | Réf. 5 L : 3024080<br>Réf. 25 L : 3026080<br>Réf. 200 L : 3028080 | Réf. 5 L : 3054000<br>Réf. 25 L : 3056000<br>Réf. 200 L : 3058000 |
| Labeling                             | No Labeling   | !   |   |   |
| Oily / Dry                           | Oily  | Dry   | Dry   | Dry   |
| Flash point (°C)                     | 64°C  | -6°C  | 35°C  | -6°C  |
| Boiling<br>interval (°C)             | 160 - 190°C   | 80 - 150°C  | 120 - 170°C   | 70 - 120°C  |
| Speed evaporation                    | Slow  | Fast  | Medium  | Fast  |
| Content VOC<br>(g/L)                 | 866,68  | 800,72  | 857,55  | 805,69  |
| Odour                                | low   | Medium  | Medium  | Medium  |
| Contains<br>aromatic<br>hydrocarbons | No  | No  | No  | No  |
| Efficiency on solvent inks           | Good  | Medium  | Good  | Good  |
| Efficiency on UV inks                | Good  | Good  | Good  | Good  |
| Efficiency on plastisol inks         | Medium  | Good  | Medium  | Medium  |
| Use                                  | Manual, automatic<br>screen cleaning unit*                        | Manual  | Manual, automatic screen cleaning unit*                           | Manual  |

<sup>\*</sup> Check the minimum flash point required for your washer.

| CHARACTERISTICS OF CLEANING SOLVENTS |   |   |   |   |
|--------------------------------------|---|---|---|---|
|                                      | NS-55   | PLASTISOL<br>SOLVENT  | NS-81   | NS-91   |
| Solvents                             | Réf. 5 L : 3024060<br>Réf. 25 L : 3026060<br>Réf. 200 L : 3028060 | Réf. 5 L : 3094000<br>Réf. 25 L : 3096000<br>Réf. 200 L : 3098000 | Réf. 5 L : 3024020<br>Réf. 25 L : 3026020<br>Réf. 200 L : 3028020 | Réf. 5 L : 3024010<br>Réf. 25 L : 3026010<br>Réf. 200 L : 3028010 |
| Labeling                             |   | GOTS approved   |   | <u>***</u> !  |
| Oily / Dry                           | Dry   | Oily  | Oily  | Dry   |
| Flash point (°C)                     | -4°C  | 78°C  | 57°C  | 34°C  |
| Boiling<br>interval (°C)             | 70 - 80°C   | > 200°C   | 165 - 190°C   | 120 - 150°C   |
| Speed evaporation                    | Very fast   | Very slow   | Slow  | Medium  |
| Content VOC (g/L)                    | 903,00  | 689,54  | 950,62  | 926,01  |
| Odour                                | Strong  | Low   | Medium  | Medium  |
| Contains<br>aromatic<br>hydrocarbons | No  | No  | No  | No  |
| Efficiency on solvent inks           | Good  | Medium  | Good  | Good  |
| Efficiency on UV inks                | Good  | Medium  | Good  | Good  |
| Efficiency on plastisol inks         | Good  | Good  | Medium  | Medium  |
| Use                                  | Manual  | Manual, automatic screen cleaning unit*                           | Manual, automatic screen cleaning unit*                           | Manual, automatic screen cleaning unit*                           |

<sup>\*</sup> Check the minimum flash point required for your washer.

| CHARACTERISTICS OF CLEANING SOLVENTS |   |   |   |   |
|--------------------------------------|---|---|---|---|
|                                      | NS-99                                   | 2881  | 2891  | 2899  |
| Solvents                             | Réf. 25 L : 3026030                     | Réf. 5 L : 3064000<br>Réf. 25 L : 3066000<br>Réf. 200 L : 3068000 | Réf. 5 L : 3074000<br>Réf. 25 L : 3076000<br>Réf. 200 L : 3078000 | Réf. 5 L : 3044000<br>Réf. 25 L : 3046000<br>Réf. 200 L : 3048000 |
| Labeling                             |   | <u>**</u> !   | !   | !   |
| Oily / Dry                           | Oily                                    | Dry   | Dry   | Dry   |
| Flash point (°C)                     | 73°C                                    | 38°C  | -6°C  | 32°C  |
| Boiling interval (°C)                | 170 - 220°C                             | 120 - 170°C   | 80 - 125°C  | 120 - 170°C   |
| Speed evaporation                    | Slow                                    | Medium  | Fast  | Medium  |
| Content VOC (g/L)                    | 777,48                                  | 903,20  | 893,87  | 901,16  |
| Odour                                | Strong                                  | Medium  | Medium  | Medium  |
| Contains<br>aromatic<br>hydrocarbons | No                                      | Yes   | No  | Yes   |
| Efficiency on solvent inks           | Good                                    | Good  | Good  | Good  |
| Efficiency on UV inks                | Medium                                  | Good  | Good  | Good  |
| Efficiency on plastisol inks         | Medium                                  | Good  | Medium  | Good  |
| Use                                  | Manual, automatic screen cleaning unit* | Manual, automatic screen cleaning unit*                           | Manual  | Manual, automatic screen cleaning unit*                           |

<sup>\*</sup> Check the minimum flash point required for your washer.

| CHARACTERISTICS OF CLEANING SOLVENTS |   |   |  |  |
|--------------------------------------|---|---|--|--|
|                                      | 4881  | 4891  |  |  |
| Solvents                             | Réf. 5 L : 3004000<br>Réf. 25 L : 3006000<br>Réf. 200 L : 3008000 | Réf. 5 L : 3014000<br>Réf. 25 L : 3016000<br>Réf. 200 L : 3018000 |  |  |
| Labeling                             | · ·   |   |  |  |
| Gras / Sec                           | Dry   | Oily  |  |  |
| Flash point (°C)                     | -4°C  | -4°C  |  |  |
| Boiling interval (°C)                | 80 - 125°C  | 80 - 125°C  |  |  |
| Speed evaporation                    | Fast  | Fast  |  |  |
| Content VOC<br>(g/L)                 | 868,54  | 878,75  |  |  |
| Odour                                | Low   | Medium  |  |  |
| Contains<br>aromatic<br>hydrocarbons | Yes   | No  |  |  |
| Efficiency on solvent inks           | Good  | Good  |  |  |
| Efficiency on UV inks                | Good  | Good  |  |  |
| Efficiency on plastisol inks         | Faint   | Faint   |  |  |
| Use                                  | Manual  | Manual  |  |  |



#### **■ FLASH POINT**

The flash point of a product is the minimum temperature, under normal atmospheric pressure, at which it emits sufficient vapors to ignite in the presence of (flame, spark, etc.).

Product labeling is directly linked to this value :

- Flash point < 23°C and boiling point > 35°C : Flammable liquid Cat.2 H225
- 23°C < Flash point < 60°C : Flammable liquid Cat.3 H226
- 60°C < Flash point < 93°C : Combustible liquid, no labeling

#### ■ VOLATILE ORGANIC COMPOUNDS (V.O.C)

Volatile Organic Compound» means any organic compound with a vapour pressure p: p 0.01 kPa or 0.075 mm Hg.

#### AROMATIC HYDROCARBONS

Aromatic hydrocarbons are mixtures of solvents derived from the fractionation of petroleum products during distillation.

Known generally as naphtha solvents, this name is often accompanied by distillation values: 90 - 160, for example.

We restrict the use of the most volatile solvents, such as toluene, xylene and benzene. Their use in cleaning solvents is mainly due to their low cost, low odour and ability to increase the solvent power of the mixture.

Used in concentrations of over 10%, they render the mixture H304 - Danger by aspiration and above 25%, they render the mixture H411 - Chronically toxic to the aquatic environment.





