

Reduction

Do you know all the possible ways to reduce your VOC emissions?





SOCOMORE has been developing and manufacturing **Speciality Chemicals** since 1972 and has been combining this knowledge with **textiles** for surface preparation and protection for more than 10 years.

The expertise of our team, along with specific technological and regulatory monitoring on HSE (Health, Safety and Environment) enables SOCOMORE to provide our customers with a wide range of solutions to improve their environmental impact and safety in the workshop.

VOC Reduction

Our objective

To help you reduce VOC ¹ emissions at their source and improve the safety of your operators, taking into account your regulatory constraints, your needs (type of application and soils, material compatibility, approvals...) and the limitations imposed by your process (cycle duration, equipment, etc.).



What is a VOC?

According to the definition of the European Community, a VOC (Volatile Organic Compound) is an organic compound, except methane, that contains carbon and which vapour pressure at 20°C (293.15 K) is superior to 10 Pascal (0.01 kPa). A few examples of VOC products: Acetone, MEK, Butyl acetate...

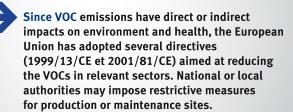
The VOC rate can be expressed:

- in %: percentage of VOC weight compared with the product total weight
- in grams / litre: weight of VOC contained in one litre of product

Example:

DIESTONE SR	100% VOC	910 g/litre
DIESTONE DLS	100% VOC	900 g/litre
Butyl acetate	100% VOC	886 g/litre
SOCOCLEAN A2501	29% VOC	287 g/litre
SOCOCLEAN AQUAFOR	TE 3% VOC	32 g/litre
DIESTONE A8284	0% VOC	0 g/litre

To know if a product contains VOC, ask your supplier or refer to the safety data sheets (section 9).



→ For further information or to view our full range of solvents and degreasers please refer to the product catalogue and technical data sheets, or visit our website www.socomore.com

A wide range of solutions to reduce your VOC emissions

To reduce VOC emissions, we can work on 3 different factors:

- the product's volatility
- the rate of VOC contained in the product
- the application process

VOC EMISSIONS QUANTITY = Amount of solvent used **X** VOC rate

(for preparation of a given surface)

Lower VOC Solvents

1 - A 100% VOC SOLVENT, LESS VOLATILE THAN YOUR PRODUCT

This type of solvent has a controlled evaporation, significantly reducing consumption and VOC emissions during application.

Volatility is measured by evaporation rate, based on the evaporation speed of the product in comparison with the butyl acetate.

The more volatile a product, the higher the evaporation rate during application, the higher the quantity of solvent required to clean the surface.

Example: replacing MEK with DIESTONE DLS (7 times lower evaporation rate), allows a significant reduction in VOC emissions.

EVAPORATION RATE

100% VOC PRODUCT'S			
	Acetone	5.6	
	MEK	3.8	
	Butyl acetate	1	
	DIESTONE DLS	0.5	
	DIESTONE A8290	0.24	
	DS 108	0.22	
	DIESTONE SR	0.12	

2 - A SOLVENT WITH A LOWER VOC RATE

This type of product is partially formulated with components that are non VOC. Per one litre of product, the VOC's emitting source is reduced.

Example: with SOCOCLEAN A2501 (30% VOC) the amount of VOC emiting source is divided by 3.3 compared with a 100% VOC product. Furthermore, its evaporation rate of only 0.24 allows further VOC reductions.

- SOCOCLEAN A2501 (30% VOC)
- DIESTONE G11 (70% VOC)

Lower VOC Solvents

Non VOC Solvents

A solvent with a **VOC** rate equal to 0, thanks to its vapour pressure inferior to 10 Pa at 20°C (European Regulation), allows complete elimination of VOC emissions in the relevant application.

Example:

- DIESTONE A8284
- HYSO 93
- SOCOSOLV A3582

Aqueous cleaners

A water-based, VOC-free degreaser can replace solvents in certain processes. This type of product is suitable for inter-operational or critical degreasing operations before various treatments (non-destructive testing, painting, etc.) and covers all application methods: immersion with or without ultrasound, spraying, wiping.

Example:

Wipes & Liquid:

- SOCOCLEAN AQUAFORTE
- SOCOCLEAN A2519



SOCOMORE offers a wide range of wipes pre-saturated with formulated solvents, chemicals or water-based solutions. The pre-saturated wipe system provides economical, environmental and safety advantages, when compared with manually dosing cloths with loose liquids, by controlling and reducing the amount of product consumed.

Controlled evaporation speed



- Reduction in solvent consumption
- Reduction in fire risks
 - Reduction in VOC emissions
 - Increased production performance
 - Reduction in waste generated
 - Improved worker safety



A few customers who have taken measures to reduce their VOC emissions AIRBUS
AIRBUS DEFENCE & SPACE
AIRBUS HELICOPTERS
AIR CANADA
AIR FRANCE
ALENIA AERMACCHI
ALSTOM
BAE
BELL HELICOPTER
BOEING
BOMBARDIER
CAAC
COMAC
DASSAULT AVIATION

EMBRAER

GKN
LOCKHEED MARTIN
MCDONNELL DOUGLAS
PRATT & WHITNEY
RENAULT
REVIMA AND REVIMA APU
ROLLS ROYCE
SAE
SABENA TECHNICS
SAFRAN GROUP
SNCF
SONACA
SPIRIT
STELIA AEROSPACE
US NAVY

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