

# Trellchem News

NEW CERTIFICATES, NEW APPROVALS, NEW PRODUCTS, NEW NEWS.

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## Trellchem suits to fit like a glove

Soon the Trellechem suits will fit like a glove – also on the smaller users. Shortly we are introducing a new standard sizing on gloves, boots and socks, better adapted to the size of the suit. These are the changes:

- Gloves: New sizes, correlated with the size of the suit
- Socks: More sizes – 6 instead of the current 3
- Boots: Small suit sizes will have smaller boots

NOTE: Other sizes than standard will still be possible.

The adjustments will be effective as soon as possible – keep a lookout at [trellchem.com](http://trellchem.com)!

Trellchem News is published by Trelleborg Protective Products AB.

### Editorial staff

Ann-Sofie Martinez Riqué  
Marketing Communicator  
Katarina Filipsson  
Product Manager PPE

Questions or comments?

Please contact us at:

[order.protective@trellborg.com](mailto:order.protective@trellborg.com)

Also refer to:

<http://www.trellchem.com>



## EVO scores 10 out of 10

With the new approvals to ATEX, EN 1073-2, EN 14126 and the 24-hour permeation tests, Trellechem EVO now fulfils all the 10 important criteria and tests for gastight chemical protective suits requested by customers worldwide.

Read more about the new approvals on the inside and about the success of Trellechem® EVO on page 4.



## A gateway in the palm of your hand



**Trelleborg Group has launched Trelleborg Gateway - an app where every target group finds its own favourites.**

With Trelleborg Gateway, clients enjoy direct access to product information and global contacts, journalists get instant news, shareholders keep instant track of the stock-exchange and students get a good feeling for the world of Trelleborg, including vacancies and other features. Check out the launch film on YouTube:

<http://www.youtube.com/watch?v=TZ2wAVCWzro>

The app is available for download at App Store and Android Market – free of charge.

**New ATEX lens**

**For the antistatic touch**

The new ATEX lens is “antistatic” and will as standard be fitted on all encapsulating Trellchem® EVO suits which are CE marked (optionally on NFPA approved suits).

The ATEX lens looks like the Rip-off lens, but has one pull-tab only, placed in the upper right corner. It will be available by the piece and in packages by 10 pieces. Pricing will be similar to the Rip-off lens.

**ATEX lens – article numbers**

Type VP1, 10 pcs	487 030 040
Type VP1, 1 pce	487 030 041
Type CV, 10 pcs	487 030 050
Type CV, 1 pce	487 030 051

# ATEX: For work in explosive atmospheres



The 94/9/EC ATEX Directive contains requirements for “...equipment and protective systems intended for use in potentially explosive atmospheres”, and has performance standards harmonized with it.

For suits the standard EN 13463-1/“Non-electrical equipment for use in potentially explosive atmospheres” would be applied. Since working environments and situations can vary, there are different work zones and groups of explosive substances defined (see table below).

Trellchem® EVO was found to fulfil the requirements for all zones and groups, i.e. it is approved on the highest level!

**SUMMARY**  
**Suit:** Trellchem® EVO  
**Suit models:** CV, VP1, T incl. European ET-versions  
**Gloves:** Trellchem® Viton®/ Butyl or NFPA Chloroprene + 4H/barrier glove  
**ATEX approval includes:**  
 Zones 0, 1, 2, 20, 21, 22  
 Groups II A, II B, II C

NOTE 1: Trellchem® EVO type CV and VP1 **must** be fitted with the new ATEX lens (see left column).

NOTE 2: Additional equipment e.g. the BA on type T suits must also be approved to make the complete PPE ATEX approved.

Zone (gas/dust)	Description	Group	Chemical substances
0 / 20	Continuously or frequently	II C	Hydrogen, Acetylene & Carbon disulfide
1 / 21	Likely to occur	II B	For example: ethylene, ether...
2 / 22	Not likely to occur	II A	Biggest group, for example: methanol, toluene...

High risk of explosion

# EN 14126: Protection against infective agents



**Infective agents typically refer to microorganisms like bacteria, viruses and fungi which may provoke infection, allergy or toxicity.**

The EN 14126 standard requires 5 different penetration tests to be made using e.g. synthetic blood, bacteriophage, contaminated liquid aerosol and dry particles. Test results are graded class 1-3 or class 1-6, depending on which test.

Trellchem® EVO, VPS and NEO are all approved to EN 14126 in the highest classes!

NOTE: Tests on Trellchem® Super and Light are ongoing.

**SUMMARY**  
**Suits:** Trellchem® EVO, VPS and NEO  
**Suit models:** CV, VP1, T incl. European ET-versions  
 EN 14126  
 Class 6/6/6/3/3 = highest classes

# EN 1073-2: Protection against radioactive particles



**For protection against radioactive particles one need respiratory protection e.g. filter mask or BA, and protective clothing certified to EN 1073.**

Inward leakage (IL) =  $C_i/C_o$   
 Protection factor (PF) =  $1/IL$   
 Highest class is 3 = IL 0.2 % = PF 500

Trellchem® EVO, VPS, NEO, Super and Light are all approved to EN 1073-2 in the highest class!

The EN 1073 standard has two parts:

Part 1 – applicable to Freeflow type of suits and  
 Part 2 – applicable to suits used with filter mask or BA (type T, CV, VP1)

The suit is tested in a chamber filled with an aerosol and the “inward leakage” is measured, i.e. the relation between the aerosol concentration inside ( $C_i$ ) the suit and outside ( $C_o$ ) in the test chamber.

NOTE: Tests on type T suits are ongoing.

**SUMMARY**

**Suits:** Trellchem® EVO, VPS, NEO, Super, Light  
**Suit models:** CV, VP1 incl. European ET-versions

EN 1073-2  
 Class 3 = 0.2 % IL = highest class

# Trellchem EVO – your partner around the clock



**For the end users who really like working in their Trellchem® EVO suit, there is no longer any reason to stop after 8 hours – new permeation test data shows the protection is available around the clock!**

The Trellchem EVO *suit material and suit seams* have been tested with the following chemicals for 24 hours, without any breakthrough:

**SUMMARY**  
**Suit:** Trellchem® EVO material and seams  
**Test method:**  
 EN 374 / ASTM F739  
**Breakthrough criterion:**  
 0.1 µg/min/cm<sup>2</sup>  
**Test duration:** 24 hours  
**Result:** No breakthrough!

Acetone	Hexane
Acetonitrile	Hydrogen chloride (gas)
Ammonia (gas)	Methanol
Butadiene (gas)	Methyl chloride (gas)
Carbon disulphide	Nitrobenzene
Chlorine (gas)	Sodium hydroxide
Dichloromethane	Sulphuric acid
Dimethylformamide	Tetrachloroethylene
Ethyl acetate	Tetrahydrofuran
Ethylene oxide	Toluene

# Full score for Trellchem EVO



With the new approvals to ATEX, EN 1073-2, EN 14126 and the 24-hour permeation tests, Trellchem EVO scores 10 out of 10 with regards to customers' requested properties. By this, Trellchem EVO is again proving to be an outstanding successor of the Trellchem HPS, who is about to retire.

	TRELLCHEM SUIT MODEL CV/VP1	EVO	HPS	VPS- FLASH	VPS	NEO	SUPER	LIGHT
1	NFPA 1991	X		X	X	X		
2	NFPA 1991 optional test; chemical flash fire protection**	X		X				
3	NFPA 1991 optional test; liquefied gas protection	X		X		X		
4	EN 943-1	X	X		X	X	X	X
5	EN 943-2/ET	X	X		X	X	X	
6	Extended 24 hours chemical resistance permeation tests***	X						
7	EN 1073-2 Protection against radioactive particles**	X			X	X	X	X
8	EN 14126 Protection against biohazards/infective agents	X			X	X		
9	EN 1149-5 "Antistatic" dissipative properties*	X						
10	ATEX (94/9/EC) For use in explosive atmospheres**	X						

\* Garment material

\*\* Complete suit

\*\*\* Garment material and seams



**TRELLEBORG**

Trelleborg Protective Products AB  
Johan Kocksgatan 10, SE-231 81 Trelleborg, Sweden  
Tel: +46 (0)410-510 00, Fax: +46 (0)410-518 50  
[order.protective@trelleborg.com](mailto:order.protective@trelleborg.com) | [www.trellchem.com](http://www.trellchem.com)