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A Lower carbon footprint

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BACKGROUND

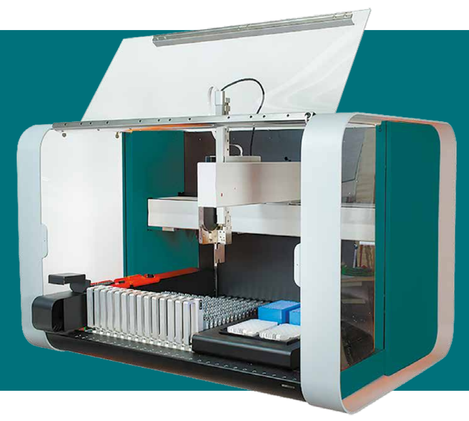
DIAGNOSTIC INDUSTRY ECO-IMPACT

The in vitro diagnostics (IVD) sector significantly impacts the environment, generating an estimated 5.4 million tons of predominantly plastic-based waste annually. In response, the European Commission launched the European Green Deal in 2019 to accelerate ecological transition, and the COP21 agreement set a target to reduce global CO_2 emissions by 40% by 2030.

Aligned with these initiatives, we are actively developing solutions to minimize our environmental footprint while maintaining the highest standards of patient safety.

HOW TO IMPROVE ECO-IMPACT OF BLOOD GROUPING TESTS ?

We have developed Omnys®, an innovative patented multiplex assay enabling the detection of all blood group directly from whole blood. This process requires only a few microliters of sample and delivers results in under 5 minutes.



ECOLOGICAL IMPACT

ONE WELL = 1 GEL CARD

1 FOIL = 8 GEL CARDS

480 SAMPLES = 480 GEL CARDS VS. 60 FOILS

CARBON FOOTPRINT OF DIFFERENT BLOOD GROUPING TECHNOLOGY AFTER MANUFACTURING

GEL CARD

33 tonnes de CO_2 + 131 tonnes de CO_2 = **164 TONNES CO_2**

MICROPLATE

25 tonnes de CO_2 + 102 tonnes de CO_2 = **127 TONNES CO_2**

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12 tonnes de CO_2 + 47 tonnes de CO_2 = **59 TONNES CO_2**

Shipment and end-of-life (Clinical waste) for 10 million of samples tested / year.

Assumptions: 1 ton of DASRI generates 934kg of CO_2
1.8 tons of material to be transported generates 421g/km - average distance 1000 km

CONCLUSION

Omnys offers a comprehensive and fully automated solution for complete blood grouping (ABO/D typing, IAT, phenotyping, and extended phenotyping), while supporting the environmental objectives set by COP21.

57% less CO_2 with OMNYS

Omnys is the unique blood grouping technology offering a 57% reduction in the carbon footprint of laboratory activity

Patents:
1 : FR2405844 : Dispositif et procédé de centrifugation pour la détection de microparticules dans un échantillon biologique
2 : WO2021156391: Method for capturing and identifying cellular agglutinates for detecting multiplex anti-erythrocyte antibodies

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