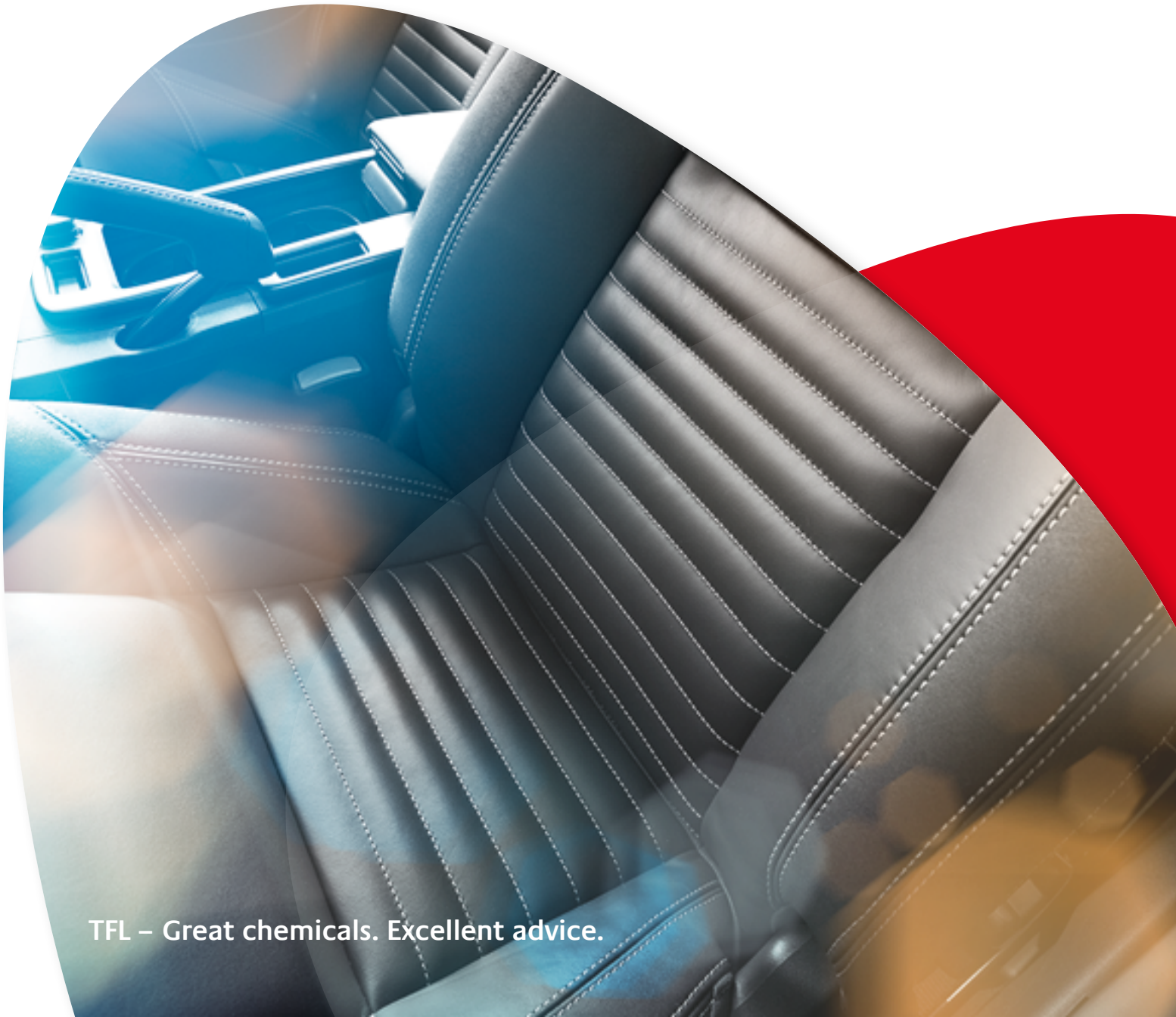
TFL LOW EMISSION

The next step to low emission in car interiors

» Selected processes and chemicals taking care of air quality



TFL – Great chemicals. Excellent advice.

TFL LOW EMISSION

Car leather – significant potential for emissions

Your TFL solution for better air quality in car interiors

Emissions of volatile organic compounds from vehicle trim components such as leather can affect the interior air quality and, therefore, the comfort and health of drivers and passengers. Several countries have therefore established regulations and guidelines about vehicle interior air quality (VIAQ) and the automotive industry has specified chemical emission limits and testing requirements for automotive components.

Product selection to fulfill low emission specifications

Chemicals applied in the leather processing may cause unwanted VOC emission. Therefore a careful screening of all products used from beamhouse to finishing needs to be performed to understand the main sources of potential emissions.

Fatliquoring has a high impact on the emission behavior of leather – be it odour, fogging or harmful substances. Enjoy significantly reduced emissions in your car interior with an innovative TFL fatliquoring concept. Thanks to **CORIPOL® LEO, LEVOTAN® HPP and RV** you can enjoy a soft and smooth ride with the best-in-class emission behavior for automotive leathers of all kinds.

CORIPOL® LEO, LEVOTAN® HPP and RV

CORIPOL® / LEVOTAN®	LEO	HPP	RV
Chemistry	natural and synthetic materials	high-performance polymer softener	polymer softener
Active content (approx.)	82 %	40 %	40 %
Stability against **→ low pH**	✓	✓	✓
Stability against **→ hard water**	✓	✓	✓
Stability against **→ chromium**	✗	✗	✗
Application	main fatliquor for nappa articles	co-softener for tightness	reduces acetaldehyde and Cr (VI)

Key: ✓ = stable, ✗ = not stable

The selection of suitable degreasing, retanning, fixing and finishing products are also of high importance for the optimization of the emission behavior. Please consult your TFL representative for advice. TFL can offer you tailor made solutions for your articles.

Chinese Emission GB / T27630

The chinese government is defining a new national standard specifying different concentration limits for eight VOC's emitted by components used in car interiors.

Acetaldehyde in automotive leathers is the biggest challenge within the eight VOC's of GB / T27630. Acetaldehyde has a very low boiling point and is highly water soluble; nevertheless, it may occur in leather and can be detected in emission tests, such as TSM0508G:2009 & TIS 01204-00351A.

How to control acetaldehyde in leather?

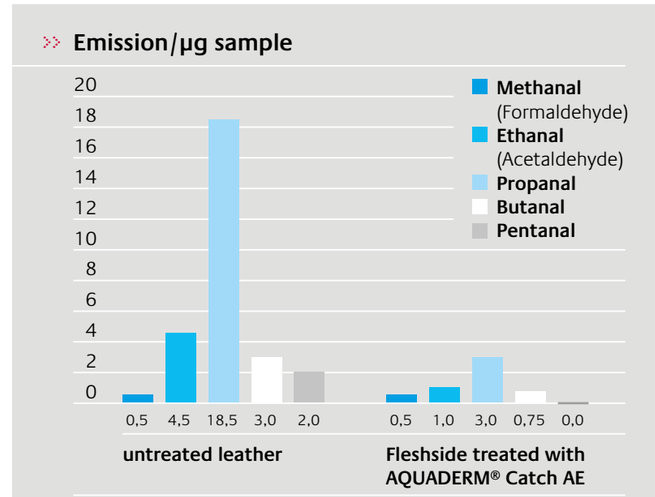
Acetaldehyde isn't used in the synthesis of TFL products, however, small amounts may be found with extraction methods. Therefore TFL has selected products to be used from beamhouse to finishing which allow leather production with a significant reduction in acetaldehyde, such as:

- PELLVIT® LSG in soaking / BORRON® DL / SAF in deliming to avoid the use of non-ionic degreasing agents
- CORIPOL® LEO, LEVOTAN® HPP and RV are best-in-class for automotive fatliquoring
- MAGNOPAL® SFT-F / IPF and TANIGAN® SR in retanning to develop specific articles

AQUADERM® Catch AE – the acetaldehyde Inhibitor

TFL has developed an acetaldehyde scavenger to be used in finishing to eliminate remaining acetaldehyde which may still be present despite optimized product selection.

Please find below a chart showing the accumulation of acetaldehyde levels in the different finishing layers and the significant impact of AQUADERM® Catch AE applied on the flesh side to reduce both dust and aldehyde emissions:



Enjoy a clean ride with TFL tailor made solutions for optimal emission behaviour of your leather interior. Discover superior softening power and the lowest levels of volatile substances with CORIPOL® LEO, LEVOTAN® HPP and RV.
Buckle up for more safety against acetaldehyde emissions with TFL's latest innovation: AQUADERM® Catch AE.

TFL PRODUCT SELECTION – to fulfill low emission specifications

www.tfl.com

12-2024