

# BioLife

Laying the foundations  
of a new chemistry of fluids

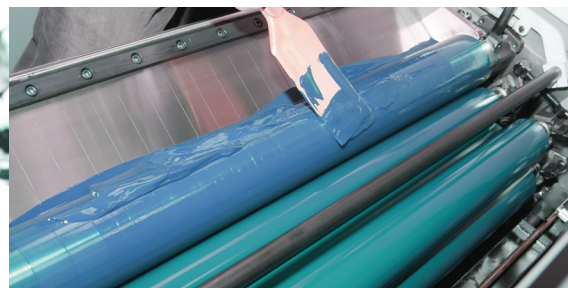


**TOTAL**

# 2016

FIRST INTRODUCTION

# OF HIGH PERFORMANCE, BIODEGRADABLE AND RENEWABLE FLUIDS



## PRINTING INKS

**Scriptane BioLife**

Mineral oil free



## METALWORKING FLUIDS

**Berylane BioLife**

Combine high flash point  
with targeted viscosity



## PAINTS & HOUSEHOLD

**Isane BioLife**

Excellent thermal  
& hydrolytic stability



# CAREFULLY SELECTED RENEWABLE FEEDSTOCKS

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## **VEGETABLE-BASED FEEDSTOCK**

100% ISCC\* AND RSPO\*  
CERTIFIED PFAD (PALM FATTY  
ACID DISTILLATES) AND  
CRUDE PALM OIL

\*ISCC: International Sustainability & Carbon Certification  
RSPO: Roundtable on Sustainable Palm Oil

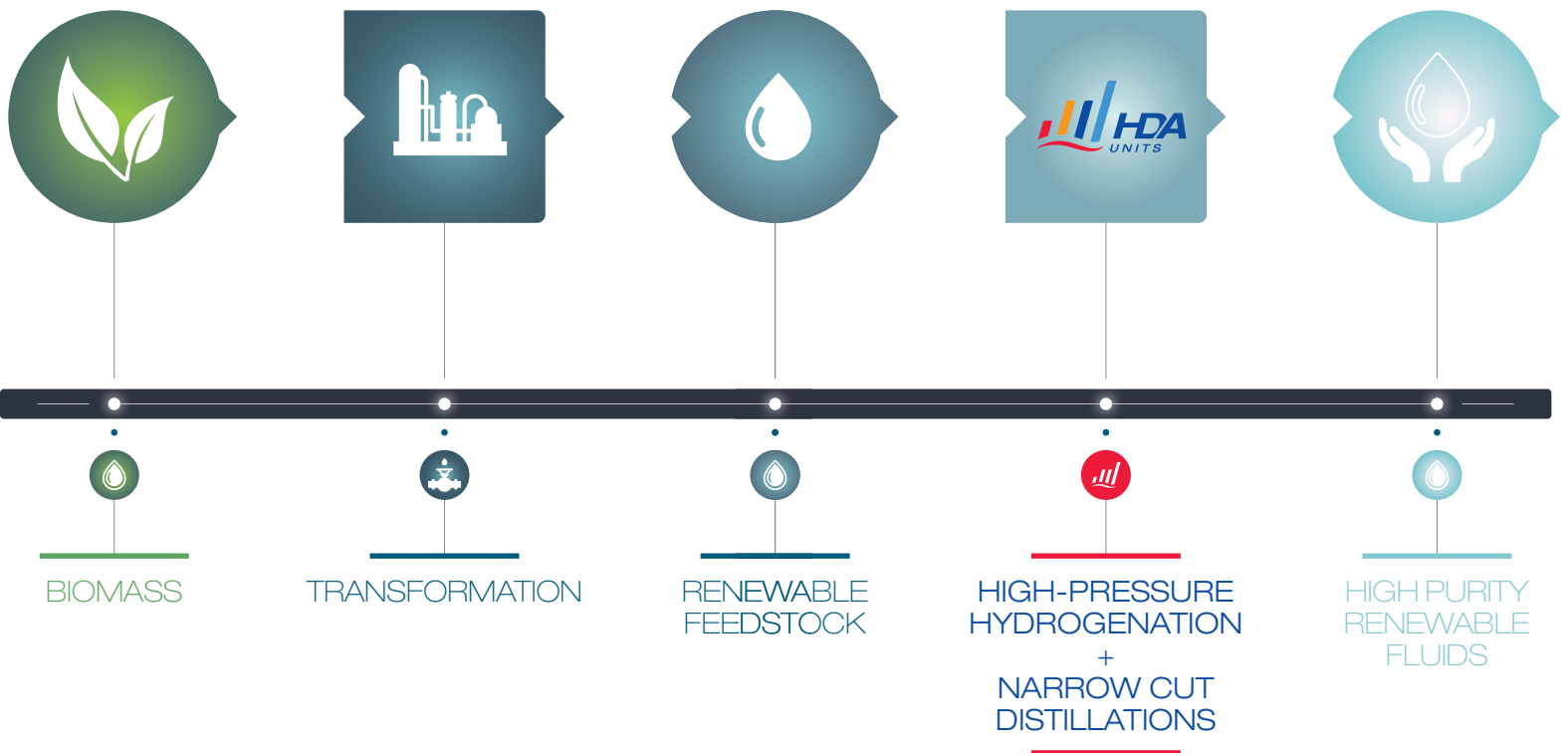
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## **AVAILABILITY ON AN INDUSTRIAL SCALE**

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## **SUSTAINABILITY COMMITMENT OF THE FEEDSTOCK SUPPLIER**

# A UNIQUE PROCESS FOR OUTSTANDING PURITY STANDARDS







# DESIGNING TOMORROW'S FLUIDS

SOLVENTS,  
CARRIERS,  
LUBRICANTS...

in every industry fluids facilitate operations and transformations.

Today, with the quest for more sustainable solutions, a new generation of fluids is needed.

As a global leader known to supply the purest solutions in the market, the Special Fluids division of Total is committed to an ambitious R&D program to explore and develop the next generation of high purity fluids from renewable resources.

# A NEW CLASS OF BIOALKANES

# PURE BIODEGRADABLE ISOPARAFFINS

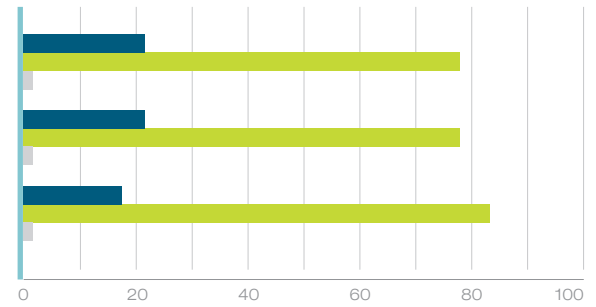
## TOTAL RENEWABLE FLUIDS ARE:

- Odorless and colorless
- Ultra low in aromatic content
- Readily biodegradable (OECD306/301B guideline)
- Pharmacopeia compliant
- Mineral oil free

## Paraffin composition

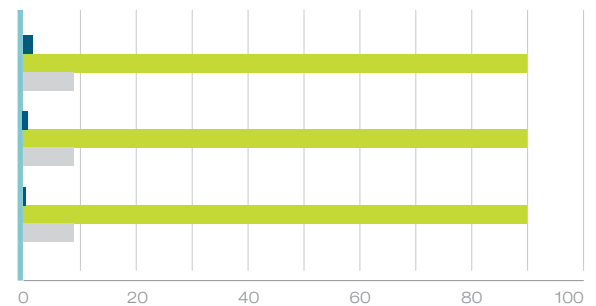
GTL

$C_{12} - C_{19}$



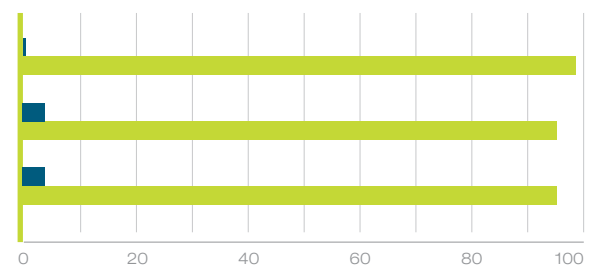
Conventional isoparaffins

$C_{12} - C_{19}$



BioLife

$C_{15} - C_{18}$



> 95% PURE ISOPARAFFINS

- Normal Paraffins
- Isoparaffins
- Naphtenics



LET'S  
REDEFINE  
PERFORMANCE

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> **100°C**

HIGH FLASH POINT

< **-45°C**

LOW POUR POINT

< **4 cST**

LOW VISCOSITY AT 40°C

< **800 kg/m<sup>3</sup>**

DENSITY



**TOTAL**

**SPECIAL FLUIDS DIVISION**

24, Cours Michelet - La Défense 10  
92069 Paris La Défense - Cedex

[www.totalspecialfluids.com](http://www.totalspecialfluids.com)