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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**FORM S-8**  
**REGISTRATION STATEMENT**  
*UNDER*  
*THE SECURITIES ACT OF 1933*

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**MATERIALISE NV**  
(Exact name of registrant as specified in its charter)

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**Kingdom of Belgium**  
(State or other jurisdiction of  
incorporation or organization)

**Not Applicable**  
(I.R.S. employer  
identification no.)

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**Technologielaan 15  
3001 Leuven  
Belgium**  
(Address of principal executive offices)

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**Warrants 2015 – Regulations**  
(Full title of the Plan)

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**Materialise USA, LLC  
44650 Helm Ct.  
Plymouth, Michigan 48170  
Attention: Chief Executive Officer  
(734) 259-6445**  
(Name, address and telephone number of agent for service)

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*Copies to:*

**Alejandro E. Camacho, Esq.  
Per B. Chilstrom, Esq.  
Clifford Chance US LLP  
31 West 52nd Street  
New York, NY 10019  
(212) 878-8000**

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Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company)

Smaller reporting company

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**CALCULATION OF REGISTRATION FEE**

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| Title of Each Class of Securities to be Registered(1) | Amount to be Registered(2) | Proposed Maximum Offering Price Per Share(3) | Proposed Maximum Aggregate Offering Price(3) | Amount of Registration Fee |
|---|----------------------------|--|--|----------------------------|
| Ordinary Shares, no nominal value per share           | 1,400,000                  | \$7.10                                       | \$9,940,000                                  | \$1,000.96                 |

- (1) These shares may be represented by American Depositary Shares (“ADS”). Each ADS represents one Ordinary Share. ADSs issuable upon deposit of the Ordinary Shares registered hereby were registered pursuant to a separate registration statement on Form F-6 (File No. 333-196734).
- (2) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the “Securities Act”), this registration statement shall also cover any additional Ordinary Shares that become issuable under the registrant’s Warrants 2015 – Regulations (the “2015 Plan”) by reason of any stock split, capital increase or decrease or other similar transaction effected without receipt of consideration that increases the number of outstanding Ordinary Shares.
- (3) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h) and Rule 457(c) under the Securities Act, based on the average of the high and low reported sale prices for the ADSs as reported by the NASDAQ Global Select Market on July 6, 2016.

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**PART I**  
**INFORMATION REQUIRED IN THE SECTION 10(A) PROSPECTUS**

**Item 1. Plan Information.\***

**Item 2. Registrant Information and Employee Plan Annual Information.\***

\* In accordance with Rule 428(b) under the Securities Act, the documents containing the information called for by Part I of Form S-8 will be sent or given to individuals who participate in the 2015 Plan and are not being filed with or included in this Form S-8. These documents and the documents incorporated by reference in this registration statement pursuant to Item 3 of Part II of Form S-8, taken together, constitute the prospectus that meets the requirements of Section 10(a) of the Securities Act.

**PART II**  
**INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

**Item 3. Incorporation of Documents by Reference.**

The following documents, which have been filed by the registrant with the Securities and Exchange Commission (the "Commission") are hereby incorporated by reference herein, and shall be deemed to be a part of, this registration statement:

- Annual Report on Form 20-F for the year ended December 31, 2015 filed with the Commission on April 28, 2016;
- the International Financial Reporting Standards financial information contained in Exhibit 99.1 of the Current Report on Form 6-K furnished to the Commission on May 11, 2016; and
- The description of the ordinary shares and ADSs contained in the registration statement on Form 8-A (File No. 001-36515), filed with the Commission on June 20, 2014 pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and any amendments or reports filed for the purpose of updating such description.

In addition, all documents filed by the registrant pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this registration statement and prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part of it from the respective dates of filing such documents; except as to any portion of any future annual, quarterly or current report or other document that is deemed furnished and not deemed filed under such provisions. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for the purposes of this registration statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

**Item 4. Description of Securities.**

Not applicable.

**Item 5. Interests of Named Experts and Counsel.**

Not applicable.

**Item 6. Indemnification of Directors and Officers.**

Under Belgian law, the directors of a company may be liable for damages to the company in case of improper performance of their duties. The registrant's directors may be liable to the registrant and to third parties for infringement of the registrant's articles of association or Belgian company law. Under certain circumstances, directors may be criminally liable. The registrant maintains liability insurance for the benefit of its directors and senior management.

In order to provide enhanced liability protection for its directors and to attract and retain highly qualified individuals to act as directors, in connection with this offering, the registrant's board of directors intends to approve the undertaking to indemnify each current and future member of the board of directors to the maximum extent permitted by law, except if the liability or expense is covered by insurance taken by the registrant or if the liability of a director would arise out of such director's fraud or willful misconduct.

In the underwriting agreement related to the initial public offering, the underwriters have agreed to indemnify, under certain conditions, the registrant, its directors and officers and persons who control the registrant within the meaning of the Securities Act, against certain liabilities.

**Item 7. Exemption from Registration Claimed.**

Not applicable.

**Item 8. Exhibits.**

A list of exhibits filed with this registration statement is set forth in the Exhibit Index hereto and is incorporated herein by reference.

**Item 9. Undertakings.**

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act), that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in Leuven, Belgium on July 8, 2016.

Materialise NV

By: /s/ Wilfried Vancraen

Name: Wilfried Vancraen

Title: Chief Executive Officer

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**POWER OF ATTORNEY**

Each person whose signature appears below hereby constitutes and appoints Wilfried Vancraen, Johan Albrecht and Peter Leys and each of them, as his attorney-in-fact and agent, with full power of substitution and resubstitution for him in any and all capacities, to sign any or all amendments or post-effective amendments to this registration statement, or any registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and to file the same, with exhibits thereto and other documents in connection therewith with the Securities and Exchange Commission, granting unto such attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary in connection with such matters and hereby ratifying and confirming all that such attorney-in-fact and agent or his substitutes may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

| <u>Name</u>   | <u>Title</u>   | <u>Date</u>  |
|---|--|--------------|
| <u>/s/ Wilfried Vancraen</u><br>Wilfried Vancraen                           | Chief Executive Officer and Director (Principal Executive Officer)                     | July 8, 2016 |
| <u>/s/ Johan Albrecht</u><br>Alfinco BVBA, represented by<br>Johan Albrecht | Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer) | July 8, 2016 |
| <u>/s/ Peter Leys</u><br>Peter Leys   | Executive Chairman   | July 8, 2016 |
| <u>/s/ Johan De Lille</u><br>A Tre C CVOA, represented by<br>Johan De Lille | Director   | July 8, 2016 |
| <u>/s/ Pol Ingelaere</u><br>Pol Ingelaere                                   | Director   | July 8, 2016 |
| <u>/s/ Hilde Ingelaere</u><br>Hilde Ingelaere                               | Director   | July 8, 2016 |
| <u>/s/ Jürgen Ingels</u><br>Jürgen Ingels                                   | Director   | July 8, 2016 |
| <u>/s/ Jos Vander Sloten</u><br>Jos Vander Sloten                           | Director   | July 8, 2016 |
| <u>/s/ Lieve Verplancke</u><br>Lieve Verplancke                             | Director   | July 8, 2016 |
| <u>/s/ Bryan L. Crutchfield</u><br>Bryan L. Crutchfield                     | Authorized Representative in the<br>United States                                      | July 8, 2016 |

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## EXHIBIT INDEX

| <u>Exhibit number</u> | <u>Exhibit description</u>  |
|-----------------------|---|
| 4.1                   | Articles of Association of Materialise NV (English translation) (incorporated by reference to Exhibit 1.1 to the annual report on Form 20-F for the year ended December 31, 2015) |
| 4.2                   | Form of Deposit Agreement (incorporated by reference to Exhibit 4.1 to the registration statement on Form F-1 (File No. 333-194982))  |
| 4.3                   | Warrants 2015 – Regulations (English translation) (incorporated by reference to Exhibit 4.5 to the annual report on Form 20-F for the year ended December 31, 2015)               |
| 4.4                   | Form of Warrant Agreement under Warrants 2015 – Regulations (English translation)   |
| 5.1                   | Opinion of Clifford Chance LLP  |
| 23.1                  | Consent of BDO Bedrijfsrevisoren Burg. CVBA, independent registered public accounting firm  |
| 23.2                  | Consent of Clifford Chance LLP (contained in Exhibit 5.1)   |
| 24.1                  | Power of Attorney (included in signature page)  |

## WARRANT AGREEMENT

Between

Materialise NV  
 Technologielaan 15  
 3001 Leuven  
 Belgium  
 Hereafter “the Company”

Hereafter “the Selected Participant”

either or both of which may be referred to individually as a “Party” and collectively as the “Parties”.

### **WHEREAS :**

1. The Company has adopted a warrant plan (“the Plan”) that provides for the grant of Warrants;
2. The Plan was adopted at the meeting of the board of directors held on December 18, 2015;
3. The Board of Directors of the Company has decided to grant Warrants to the Selected Participant;
4. The Parties wish to enter into a written agreement whereby the conditions of the grant of the Warrants are defined;
5. The Plan shall be an integral part of this Agreement. This Agreement will also serve as “Acceptance Form” for the purposes of the Plan.

### **The Parties therefore agree to the following:**

#### **Article 1. Grant of Warrants**

In accordance with the terms and conditions as stipulated in the Plan and this Agreement, the Company hereby grants a total of . Warrants to the Selected Participant, who hereby accepts . Warrants which have as a result been granted.

#### **Article 2. Date of the Offer**

The Date of the Offer, as defined in the Plan, is .

#### **Article 3. Acceptance period**

Acceptance must take place in accordance with Section 4.3.2 of the Plan. In order to accept the warrants, the Selected Participant must complete, sign and return this Acceptance Form to the Company within . calendar days after the date of the Offer.

#### **Article 3. Exercise Price of Warrants**

The Exercise Price per Warrant is € .

#### **Article 4: Term of the Warrants**

The term of the Warrants ends 10 years after the date of the decision to issue the Warrants.

#### **Article 5: Vesting and Exercisability of the Warrants**

##### **5.1 Vesting of the Warrants**

The Warrants will be vested according to the rules set forth in Section 4.3.4 of the Plan.

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5.2 Exercisability of the Warrants

The Warrants can be exercised as stipulated in the Plan, in particular in Section 4.6 (Exercise periods) and Section 4.11 (Exercise procedure).

5.3 Number of Warrants that may be exercised during the Exercise Period

The Warrants granted to a Selected Participant can only be exercised during an Exercise Period if they are vested as stipulated in Section 4.3.4 of the Plan.

5.4 Termination of the employment agreement, consultant agreement or the director's mandate

In case of a termination of the employment agreement, the consultant agreement or the director's mandate of the Selected Participant, only such Warrants will be exercisable as set forth in section 4.7 of the Plan.

In witness thereof, Parties have signed this agreement

on

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The Company  
Materialise NV, represented by  
Peter Leys  
Authorized representative of the Board of Directors

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The Selected Participant  
[name]

**C L I F F O R D  
C H A N C E**

**CLIFFORD CHANCE LLP**

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BOX 2  
1050 BRUSSELS  
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Your reference:  
Our reference: 80-40613232  
Direct Dial: +32 2 533 5072  
niek.depauw@cliffordchance.com

Materialise NV  
Technologielaan 15  
3001 Leuven (Heverlee)  
Belgium

8 July 2016

Dear Sirs and Mesdames,

**Materialise NV – Warrants 2015**

We have acted as Belgian legal counsel to Materialise NV, a public limited liability company (“*naamloze vennootschap die een openbaar beroep op het spaarwezen doet of heeft gedaan*”) incorporated under Belgian law with its registered office at Technologielaan 15, 3001 Leuven (Heverlee), Belgium, and enterprise number 0441.131.254 RPR/RPM Leuven (the “**Company**”), on certain legal matters of Belgian law in connection with the Company’s registration statement (the “**Registration Statement**”) on Form S-8 filed with the United States Securities and Exchange Commission under the United States Securities Act of 1933, as amended, in respect of up to 1,400,000 ordinary shares, without nominal value, of the Company (the “**Shares**”) to be issued upon the exercise of warrants to be granted under the 2015 warrant plan of the Company (the “**2015 Warrant Plan**”) to members of personnel, directors and consultants of the Company and its subsidiaries (the “**Group**”).

1. For the purpose of this opinion we have examined the following documents (the “**Documents**”):
  - (a) the Registration Statement;
  - (b) the regulations of the 2015 Warrant Plan incorporated as exhibit 4.3 to the Registration Statement;
  - (c) a copy of the notarial deed recording the resolutions taken by the Company’s board of directors’ meeting held on 18 December 2015 with regard to the issuance of the warrants under the 2015 Warrant Plan;
  - (d) a copy of an extract of the minutes of the Company’s board of directors’ meeting held on 22 April 2016 clarifying certain aspects of the 2015 Warrant Plan;

- (e) a copy of the special report of the Company's board of directors dated 17 December 2015 in accordance with articles 583, 596 and 598 of the Belgian Companies Code (the "**Board Report**");
- (f) a copy of the letter of the Belgian Financial Services and Markets Authority dated 8 December 2015 with regard to the Board Report;
- (g) a copy of the report of the Company's statutory auditor Grant Thornton Bedrijfsrevisoren CVBA dated 17 December 2015 in accordance with articles 596 and 598 of the Belgian Companies Code; and
- (h) a copy of the coordinated articles of association of the Company as at 18 December 2015,  
together with such other publicly available documents as we have considered it necessary or desirable.

2. Our opinion is based upon the following assumptions:

- (a) the genuineness of all signatures, the authenticity of the Documents submitted to us as originals, the conformity to the originals of all Documents submitted to us as copies and the authenticity of the originals of such Documents;
- (b) the Documents have been executed by the persons whose names are indicated thereon as being the names of the signatories or, if such names are not indicated, by the persons authorised to execute such Documents and we have assumed the legal capacity ("*bekwaamheid*") of the natural persons executing such Documents;
- (c) the statements of facts contained in the Documents are accurate and complete;
- (d) that documents examined by us in draft or electronic form have been executed substantially in such form;
- (e) all shareholders' and board of directors' meetings of the Company were validly convened and held in accordance with the Belgian Companies Code;
- (f) the statements of facts contained in the minutes of all shareholders' and board of directors' meetings of the Company are accurate and complete (including, but not limited to, the validity and existence of attendance lists, waivers, powers of attorney, reports, etc. which the minutes refer to);
- (g) that the 2015 Warrant Plan has been, and will at all times be, operated in accordance with its terms; and
- (h) that the Company's board of directors (or such persons as the board of directors may appoint in accordance with the terms of the 2015 Warrant Plan) will duly grant all warrants under the 2015 Warrant Plan relating to the Shares.

3. Based upon the above and subject to the qualifications set out below and to any matters not disclosed to us, we are, as at the date hereof, of the opinion that any Shares to be issued upon exercise of any warrants to be granted under the 2015 Warrant Plan, to the extent that they will be issued by the Company in compliance with the then applicable provisions of the articles of association of the Company, the laws of Belgium, the terms of such warrants and the 2015 Warrant Plan, and that the Company will have received in full all amounts payable by the participants under the 2015 Warrant Plan in respect of such Shares, will be validly issued, fully paid up and non-assessable.
4. Our opinion is subject to the following qualifications:
  - (a) In this opinion, Belgian legal concepts are expressed in English terms and not in their original Dutch or French terms; the concepts concerned may not be identical to the concepts described by the same English terms as they exist under the laws of other jurisdictions; all legal concepts used or referred to in this opinion should be exclusively interpreted according to their respective meaning under the laws of Belgium; in particular, as far as the word “non-assessable” used in paragraph 3 is concerned, please note that this word has no legal meaning under the laws of Belgium and is used in this opinion only to mean that, with respect to the issuance of the Shares, a holder of the Shares will have no obligation to pay any additional amount in excess of the subscription price.
  - (b) Belgian company law provides that the beneficiaries of the warrants, other than members of personnel, be mentioned in the Board Report, but does not specify the required level of identification of such beneficiaries in the Board Report. The Board Report identifies the beneficiary directors and consultants by reference to categories. The Company’s board of directors confirmed that the level of identification has not had any influence on its decision to issue the warrants. Therefore, in our view, a court would not nullify the issuance of the warrants on that basis.
5. This opinion speaks as of its date and is confined to and is given solely on the basis of the laws of Belgium as presently in force, and as generally interpreted and applied by the Belgian courts and authorities on the same date. We do not give any opinion on factual matters.
6. We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In giving this consent, we do not concede that we are within the category of persons whose consent is required under the United States Securities Act of 1933, as amended.

Very truly yours,

/s/ Clifford Chance LLP

**Clifford Chance LLP**

**Consent of Independent Registered Public Accounting Firm**

Materialise NV  
Leuven, Belgium

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement of our report dated April 28, 2016, relating to the consolidated financial statements of Materialise NV, appearing in the Company's Annual Report on Form 20-F for the year ended December 31, 2015.

BDO Bedrijfsrevisoren Burg. CVBA  
On behalf of it,

/s/ Bert Kegels

Bert Kegels

Zaventem, Belgium  
July 8, 2016