

# Safety Data Sheet

Australia

## Section 1. Identification

**Product name** Cellulose nitrate circles, plain, 0.45 µm 47 mm, 100 pack

**Catalogue Number** 7184-004



**Chemical product name** Cellulose nitrate

**Synonyms** Nitrocellulose; Cellulose, nitrate; Celloidin; pyroxylin; cellulose nitrate, non-plasticised, other than collodions and celloidin; collodion cotton; fulmicotton; gum cotton; nitrocellulose; nitrocellulose, non-plasticised, other than collodions and celloidin; COLLODION; PYROXYLIN SOLUTION; Cellulose tetranitrate

**Product type** Solid.

**Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses**

Use in laboratories  
Scientific research and development  
Analytical chemistry.

**Company details**

**Manufacturer**

GE Healthcare Bio-Sciences AB  
Bjorkgatan 30  
SE-75184 Uppsala  
Sweden  
+46 18 61 20000

**Supplier**

Global Life Sciences Solutions Australia Pty Ltd  
Level 11, 32 Phillip Street  
Parramatta  
Sydney 2150  
New South Wales  
Australia  
tfn: 18 0015 0522

**Emergency telephone number** 000 and +61 2 9846 4000

## Section 2. Hazard(s) identification

**Classification of the substance or mixture** FLAMMABLE SOLIDS - Category 2

**GHS label elements**

**Hazard pictograms**



**Signal word**

**WARNING**

**Hazard statements**

**Flammable solid.**

**Precautionary statements**

**Prevention**

Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Response**

Not applicable.

**Storage**

Not applicable.

**Disposal**

Not applicable.



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**Supplemental label elements** Not applicable.

**Other hazards which do not result in classification** None known.

### Section 3. Composition and ingredient information

**Substance/mixture** Substance  
**Chemical identity** Cellulose nitrate  
**Other means of identification** Nitrocellulose; Cellulose, nitrate; Celloidin; pyroxylin; cellulose nitrate, non-plasticised, other than collodions and celloidin; collodion cotton; fulmicotton; gum cotton; nitrocellulose; nitrocellulose, non-plasticised, other than collodions and celloidin; COLLODION; PYROXYLIN SOLUTION; Cellulose tetranitrate

#### CAS number/other identifiers

**CAS number** 9004-70-0  
**EC number** Not available.

| Ingredient name   | % (w/w) | CAS number |
|-------------------|---------|------------|
| Cellulose nitrate | 100     | 9004-70-0  |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First aid measures

#### Description of necessary first aid measures

**Eye contact** In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if irritation occurs.  
**Inhalation** No special recommendations.  
**Skin contact** Wash with soap and water. Get medical attention if irritation develops.  
**Ingestion** No special recommendations.

#### Most important symptoms/effects, acute and delayed

##### Potential acute health effects

**Eye contact** No known significant effects or critical hazards.  
**Inhalation** No known significant effects or critical hazards.  
**Skin contact** No known significant effects or critical hazards.  
**Ingestion** No known significant effects or critical hazards.

##### Over-exposure signs/symptoms

**Eye contact** No specific data.  
**Inhalation** No specific data.  
**Skin contact** No specific data.  
**Ingestion** No specific data.

#### Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician** In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.  
**Specific treatments** No specific treatment.  
**Protection of first-aiders** No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)



## Section 5. Firefighting measures

### Extinguishing media

|   |  |
|---|--|
| <b>Suitable extinguishing media</b>                   | Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.   |
| <b>Unsuitable extinguishing media</b>                 | Do not use water jet.  |
| <b>Specific hazards arising from the chemical</b>     | Flammable solid.   |
| <b>Hazardous thermal decomposition products</b>       | Decomposition products may include the following materials:<br>nitrogen oxides   |
| <b>Special protective actions for fire-fighters</b>   | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. |
| <b>Special protective equipment for fire-fighters</b> | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.  |

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

|                                    |   |
|------------------------------------|---|
| <b>For non-emergency personnel</b> | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| <b>For emergency responders</b>    | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".   |
| <b>Environmental precautions</b>   | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).   |

### Methods and material for containment and cleaning up

|                    |   |
|--------------------|---|
| <b>Small spill</b> | Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.   |
| <b>Large spill</b> | Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |

## Section 7. Handling and storage

### Precautions for safe handling

|   |  |
|---|--|
| <b>Protective measures</b>  | Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.  |
| <b>Advice on general occupational hygiene</b>                       | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.  |
| <b>Conditions for safe storage, including any incompatibilities</b> | Store between the following temperatures: 18 to 25°C (64.4 to 77°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |



## Section 8. Exposure controls and personal protection

### Control parameters

#### Occupational exposure limits

None.

#### **Appropriate engineering controls**

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### **Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### **Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### **Eye/face protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

#### Skin protection

##### **Hand protection**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

##### **Body protection**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

##### **Other skin protection**

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

##### **Respiratory protection**

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

#### **Physical state**

Solid.

#### **Colour**

White.

#### **Odour**

Odourless.

#### **Flash point**

Closed cup: 4.44°C (40°F)

#### **Flammability (solid, gas)**

Product becomes a 'Flammable Solid category 2' after removing the membrane from the package. If the product is still in its original packaging it is not a 'Flammable Solid category 2'.

#### **Vapour pressure**

0 kPa (0 mm Hg) [room temperature]

#### **Relative density**

1.66

#### **Partition coefficient: n-octanol/water**

Not available.

#### **Auto-ignition temperature**

>160°C (>320°F)

#### **Decomposition temperature**

Not available.

#### **Viscosity**

Dynamic (room temperature): Not applicable.  
Kinematic (room temperature): Not applicable.

#### **Flow time (ISO 2431)**

Not available.

### Aerosol product

#### **Flame duration**

Not applicable.



## Section 10. Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | No specific test data related to reactivity available for this product or its ingredients.           |
| <b>Chemical stability</b>                 | The product is stable.   |
| <b>Possibility of hazardous reactions</b> | Under normal conditions of storage and use, hazardous reactions will not occur.                      |
| <b>Conditions to avoid</b>                | Avoid all possible sources of ignition (spark or flame).   |
| <b>Incompatible materials</b>             | Reactive or incompatible with the following materials:<br>oxidizing materials                        |
| <b>Hazardous decomposition products</b>   | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name   | Result     | Species | Dose    | Exposure |
|---------------------------|------------|---------|---------|----------|
| Cellulose nitrate         | LD50 Oral  | Rat     | >5 g/kg | -        |
| <b>Conclusion/Summary</b> | Not toxic. |         |         |          |

#### Irritation/Corrosion

Not available.

#### Sensitisation

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

**Information on likely routes of exposure** Routes of entry not anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

|                     |   |
|---------------------|---|
| <b>Eye contact</b>  | No known significant effects or critical hazards. |
| <b>Inhalation</b>   | No known significant effects or critical hazards. |
| <b>Skin contact</b> | No known significant effects or critical hazards. |
| <b>Ingestion</b>    | No known significant effects or critical hazards. |

### Symptoms related to the physical, chemical and toxicological characteristics

|                     |                   |
|---------------------|-------------------|
| <b>Eye contact</b>  | No specific data. |
| <b>Inhalation</b>   | No specific data. |
| <b>Skin contact</b> | No specific data. |
| <b>Ingestion</b>    | No specific data. |

### Delayed and immediate effects as well as chronic effects from short and long-term exposure



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**Short term exposure****Potential immediate effects** Not available.**Potential delayed effects** Not available.**Long term exposure****Potential immediate effects** Not available.**Potential delayed effects** Not available.**Potential chronic health effects**

Not available.

**Conclusion/Summary** Not toxic.**General** No known significant effects or critical hazards.**Carcinogenicity** No known significant effects or critical hazards.**Mutagenicity** No known significant effects or critical hazards.**Teratogenicity** No known significant effects or critical hazards.**Developmental effects** No known significant effects or critical hazards.**Fertility effects** No known significant effects or critical hazards.**Numerical measures of toxicity****Acute toxicity estimates**

N/A

**Section 12. Ecological information****Toxicity**

| Product/ingredient name   | Result  | Species                                 | Exposure |
|---------------------------|---|---|----------|
| Cellulose nitrate         | Acute EC50 579000 µg/l Fresh water                | Algae - Pseudokirchneriella subcapitata | 96 hours |
| <b>Conclusion/Summary</b> | No known significant effects or critical hazards. |   |          |

**Persistence and degradability**

Not available.

**Bioaccumulative potential**

Not available.

**Mobility in soil****Soil/water partition coefficient (K<sub>oc</sub>)** Not available.**Other adverse effects** No known significant effects or critical hazards.**Section 13. Disposal considerations****Disposal methods**

The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.



## Section 14. Transport information

|  | ADG  | ADR/RID  | IMDG   | IATA   |
|--|--|--|--|--|
| UN number  | Not regulated.   | Not regulated.   | Not regulated.   | Not regulated.   |
| Proper shipping name   | -  | -  | -  | -  |
| Class  | -  | -  | -  | -  |
| Label  |  |  |  |  |
| PG   | -  | -  | -  | -  |
| Environmental hazards  | No.  | No.  | No.  | No.  |
| Additional information   | <p><b>Remarks</b> The product is not regulated as Dangerous Goods for transport according to a expert opinion by BAM (Bundesanstalt für Materialforschung und -prüfung) with number 2.2-91/15-E on 12 May 2015.</p> <p><i>"The above named nitrocellulose membrane filters (in form of round filters, pre-cut parts and curved parts) do not fulfill the criteria of Class 1 'Explosives' and the division 4.1 'Flammable Solids' of RID/ADR (GGVSE), IMDG-Code (GGVSee) and the ICAO-Technical Instructions."</i></p> | <p><b>Remarks</b> The product is not regulated as Dangerous Goods for transport according to a expert opinion by BAM (Bundesanstalt für Materialforschung und -prüfung) with number 2.2-91/15-E on 12 May 2015.</p> <p><i>"The above named nitrocellulose membrane filters (in form of round filters, pre-cut parts and curved parts) do not fulfill the criteria of Class 1 'Explosives' and the division 4.1 'Flammable Solids' of RID/ADR (GGVSE), IMDG-Code (GGVSee) and the ICAO-Technical Instructions."</i></p> | <p><b>Remarks</b> The product is not regulated as Dangerous Goods for transport according to a expert opinion by BAM (Bundesanstalt für Materialforschung und -prüfung) with number 2.2-91/15-E on 12 May 2015.</p> <p><i>"The above named nitrocellulose membrane filters (in form of round filters, pre-cut parts and curved parts) do not fulfill the criteria of Class 1 'Explosives' and the division 4.1 'Flammable Solids' of RID/ADR (GGVSE), IMDG-Code (GGVSee) and the ICAO-Technical Instructions."</i></p> | <p><b>Remarks</b> The product is not regulated as Dangerous Goods for transport according to a expert opinion by BAM (Bundesanstalt für Materialforschung und -prüfung) with number 2.2-91/15-E on 12 May 2015.</p> <p><i>"The above named nitrocellulose membrane filters (in form of round filters, pre-cut parts and curved parts) do not fulfill the criteria of Class 1 'Explosives' and the division 4.1 'Flammable Solids' of RID/ADR (GGVSE), IMDG-Code (GGVSee) and the ICAO-Technical Instructions."</i></p> |
| Special precautions for user                                       | <b>Transport within user's premises:</b> always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.  |  |  |  |
| Transport in bulk according to Annex II of Marpol and the IBC Code | Not available.   |  |  |  |

## Section 15. Regulatory information

**Standard Uniform Schedule of Medicine and Poisons**

Not regulated.

**Model Work Health and Safety Regulations - Scheduled Substances****Ingredient name**

Cellulose nitrate

**Schedule**

Restricted hazardous chemical [For wet abrasive blasting]

**International regulations****Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol (Annexes A, B, C, E)**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

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|                         |  |
|-------------------------|--|
| <b>Australia</b>        | This material is listed or exempted.   |
| <b>Europe</b>           | Not determined.  |
| <b>United States</b>    | This material is listed or exempted.   |
| <b>Canada inventory</b> | This material is listed or exempted.   |
| <b>China</b>            | This material is listed or exempted.   |
| <b>Japan</b>            | <b>Japan inventory (ENCS):</b> This material is listed or exempted.<br><b>Japan inventory (ISHL):</b> This material is listed or exempted. |
| <b>Malaysia</b>         | <input checked="" type="checkbox"/> Not determined   |
| <b>New Zealand</b>      | This material is listed or exempted.   |

## Section 16. Any other relevant information

### History

|                         |                   |                               |               |
|-------------------------|-------------------|-------------------------------|---------------|
| <b>Date of printing</b> | 04 November 2019  | <b>Date of previous issue</b> | 12 April 2018 |
| <b>Date of issue</b>    | 02 September 2019 | <b>Version</b>                | 6             |

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ADG = Australian Dangerous Goods

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)


N/A = Not available

SUSMP = Standard Uniform Schedule of Medicine and Poisons

UN = United Nations

### Procedure used to derive the classification

| Classification                | Justification         |
|-------------------------------|-----------------------|
| FLAMMABLE SOLIDS - Category 2 | On basis of test data |

 Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

