GE Healthcare

SAFETY DATA SHEET

United States

Section 1. Identification

Product name

Cellulose nitrate circles, plain, 0.45 µm 47 mm, 100 pack

Catalogue Number

7184-004

9 0 7 1 8 4 0 0 4

Chemical name Nitrocellulose

Other means of identification

Product type Solid.

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

Identified uses

Use in laboratories

Industrial applications: Analytical chemistry. Research.

Supplier

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In case of emergency ChemTrec US (available 24/7) **1-800-424-9300**

Section 2. Hazards identification

OSHA/HCS status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

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, sparks, open flames and hot surfaces. - No smoking.

Response Not applicable.

Storage Not applicable.

Disposal Not applicable.

Hazards not otherwise classified None known.

Section 3. Composition/information on ingredients

Substance/mixture Substance

Chemical name Nitrocellulose

Other means of identification

CAS number/other identifiers

CAS number 9004-70-0

Product code 7184-004

Ingredient name	%	CAS number
Nitrocellulose	100	9004-70-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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 Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

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. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media Do not use water jet.

Specific hazards arising from the chemical Flammable solid.

Hazardous thermal decomposition products Decomposition products may include the following materials:
nitrogen oxides

Special protective actions for fire-fighters 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.

Special protective equipment for fire-fighters Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Eliminate all ignition sources. Vacuum or sweep up material and place in a designated, labeled waste container.
For emergency responders	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".
Environmental precautions	No special recommendations.

Methods and materials for containment and cleaning up

Small spill	Eliminate all ignition sources. Vacuum or sweep up material and place in a designated, labeled waste container.
Large spill	Eliminate all ignition sources. Vacuum or sweep up material and place in a designated, labeled waste container.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. 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.
Advice on general occupational hygiene	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.
Conditions for safe storage, including any incompatibilities	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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls	No special ventilation requirements.
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	A respirator is not needed under normal and intended conditions of product use.

Section 9. Physical and chemical properties

Appearance

Physical state	Solid.
Color	White.
Odor	Odorless.
Odor threshold	Not available.
pH	Not applicable.
Melting point	Not available.
Boiling point	Not available.
Flash point	Closed cup: 12.85°C (55.1°F)
Burning time	Not available.
Burning rate	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Product becomes a 'Flammable Solid category 2' after removing the membrane from the package. If the product is still in it's original packaging it is not a 'Flammable Solid category 2'.
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	0 kPa (0 mm Hg) [room temperature]
Vapor density	Not available.
Relative density	Not available.
Solubility	Partially soluble in the following materials: methanol, diethyl ether and acetone. Insoluble in the following materials: cold water and hot water.
Solubility in water	Not applicable.
Partition coefficient: n-octanol/ water	Not available.
Auto-ignition temperature	>160°C (>320°F)
Decomposition temperature	Not available.
SADT	Not available.
Viscosity	Dynamic (room temperature): Not applicable. Kinematic (room temperature): Not applicable.

Section 10. Stability and reactivity

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame).
Incompatible materials	Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	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
Nitrocellulose	LD50 Oral	Rat	>5 g/kg	-

Conclusion/Summary Not toxic.

Irritation/Corrosion

Not available.

Sensitization

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 the likely routes of exposure Routes of entry not anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact	No known significant effects or critical hazards.
Inhalation	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

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

Delayed and immediate effects and also chronic effects from short and long term exposure

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

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Nitrocellulose	Acute EC50 579000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours

Conclusion/Summary No known significant effects or critical hazards.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) 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 minimized 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Product is not regulated as dangerous goods for transport.

Section 15. Regulatory information

U.S. Federal regulations **TSCA 8(a) CDR Exempt/Partial exemption**: This material is listed or exempted.
United States inventory (TSCA 8b): This material is listed or exempted.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) Not listed
Clean Air Act Section 602 Class I Substances Not listed
Clean Air Act Section 602 Class II Substances Not listed
DEA List I Chemicals (Precursor Chemicals) Not listed
DEA List II Chemicals (Essential Chemicals) Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ Not applicable.

SARA 311/312

Classification Fire hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Nitrocellulose	100	Yes.	No.	No.	No.	No.

State regulations

Massachusetts This material is listed.
New York This material is not listed.
New Jersey This material is listed.
Pennsylvania This material is listed.

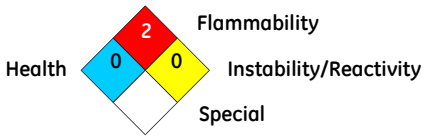
International regulations

Canada inventory This material is listed or exempted.
International lists **Australia inventory (AICS)**: This material is listed or exempted.
China inventory (IECSC): This material is listed or exempted.
Japan inventory: This material is listed or exempted.
Korea inventory: This material is listed or exempted.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): This material is listed or exempted.
Philippines inventory (PICCS): This material is listed or exempted.
Taiwan inventory (CSNN): Not determined.

Chemical Weapons Convention List Schedule I Chemicals Not listed
Chemical Weapons Convention List Schedule II Chemicals Not listed
Chemical Weapons Convention List Schedule III Chemicals Not listed

Section 16. Other information

National Fire Protection Association (U.S.A.)



History

Date of printing	4/5/2016.
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Key to abbreviations	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 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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