



SAFETY DATA SHEET CELLULOSE FIBRES REVISION 3, DATE 01 MAY 20

1. IDENTIFICATION

Product Name	Cellulose Fibres
Other Names	ARBOCEL B 00; ARBOCEL BC-1000; ARBOCEL BW 40; ARBOCEL FD40; ARBOCEL PWC 500; ARBOCEL ZZC 500; JELUCEL HM; JELUCEL TC 300; TECHNOCEL 165
Uses	Basic raw material; For professional users; Used as thickener, fibre reinforcement, absorbent, diluent, carrier and filler.
Chemical Family	No Data Available
Chemical Formula	Unspecified
Chemical Name	Cellulose
Product Description	Technical cellulose. Natural cellulose fibres. *This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

2. HAZARD IDENTIFICATION



Poisons Schedule (Aust) Not Scheduled

Globally Harmonised System

Hazard Classification NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Signal Word None

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Cellulose fibres	Unspecified	9004-34-6	<=100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then drink plenty of water. Do not induce vomiting. Get medical advice/attention if you feel unwell.
Eye	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for 10 - 15 minutes. If eye irritation persists, get medical advice/attention; consult an ophthalmologist.
Skin	IF ON SKIN: Gently brush away excess particles. Flush skin with lukewarm, gently flowing water for at least 5 minutes, or until chemical is removed. Take off contaminated clothing and wash it before reuse. If skin irritation occurs, get medical advice/attention.
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention.
Advice to Doctor	Treat symptomatically. When in doubt or if symptoms are observed, get medical advice.
Medical Conditions Aggravated by Exposure	No information available.

5. FIRE FIGHTING MEASURES

General Measures	If a significant quantity of this product is involved in a fire, call the fire brigade. If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out. Dike fire-control water for later disposal.
Flammability Conditions	This material is combustible, but does not ignite readily.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO ₂), foam or water spray for extinction - Do not use high power water jet. Do not

	scatter spilled material with high-pressure water streams.
Fire and Explosion Hazard	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
Hazardous Products of Combustion	Fire may produce irritating and/or toxic fumes, including Carbon monoxide, Carbon dioxide. *The cellulose polymer begins to decompose at 250°C. The initial products include various glucose and furan products with further formation of acrolein and other respiratory irritants.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may cause pollution.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
Flash Point	No Data Available
Lower Explosion Limit	30 g/m ³
Upper Explosion Limit	11,000 g/m ³
Auto Ignition Temperature	approx. 500 °C
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation. ELIMINATE all ignition sources (if dust clouds can occur). Do not touch or walk through spilled material. Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
Clean Up Procedures	Take up mechanically. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly (see SECTION 13). *Consider vacuuming, if appropriate. Do not use a dry brush as dust clouds or static can be created.
Containment	Stop leak if you can do it without risk. Prevent dust cloud. Prevent entry into waterways, sewers, basements or confined areas.
Decontamination	After spills, wash area preventing runoff from entering drains.
Environmental Precautionary Measures	No special environmental measures are necessary. Prevent entry into drains and waterways. If a significant quantity of material enters drains, advise emergency services.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
Personal Precautionary Measures	Use personal protective equipment as required (see SECTION 8). *If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable dust mask.

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Minimise dust generation and accumulation. Avoid breathing dust and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Danger of dust explosion! Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Have fire-extinguishers in readiness before opening containers.
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly sealed. Protect against moisture and humidity. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Keep away from foodstuffs/drinks and incompatible materials (see SECTION 10). *Storage temperature: Do not expose to temperatures exceeding 50°C
Container	Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	For Cellulose (CAS No. 9004-34-6): - Safe Work Australia Exposure Standard: TWA = 10 mg/m ³ ; This value is for inhalable dust containing no asbestos and < 1% crystalline silica (a). - New Zealand Workplace Exposure Standard: TWA = 10 mg/m ³ .
Exposure Limits	No Data Available
Biological Limits	No information available.
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
Personal Protection Equipment	- Respiratory protection: If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Recommended: If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable dust mask (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Wear suitable protective glasses or goggles. - Hand protection: Handle with gloves. Recommended: Wear suitable gloves (preferably elbow-length) when lengthy skin contact is likely. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: There is no specific recommendation for any particular protective material type.
Special Hazards Precautions	Damage can be caused through mechanical influence of the product (e.g. sticking).
Work Hygienic Practices	Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work. Take off contaminated clothing and wash before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Fibres/powder/granulate
Odour	Odourless
Colour	White or light yellow
pH	5 - 8.5
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	Decomposes before melting
Freezing Point	No Data Available
Solubility	Insoluble in water
Specific Gravity	Approx. 1.5
Flash Point	No Data Available
Auto Ignition Temp	approx. 500 °C
Evaporation Rate	No Data Available
Bulk Density	115 - 280 kg/m ³
Corrosion Rate	No Data Available
Decomposition Temperature	Approx. 170 - 200 °C
Density	Approx. 1.5 g/cm ³
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available

Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No information available.
Potential for Dust Explosion	Danger of dust explosion. - Dust explosion category: St 1 - Minimum ignition energy: >30 mJ - Minimum ignition temperature of a dust cloud: ≥ 400 °C - Flammability and burning behaviour of dust layers: combustion rate (BZ) 5 - Minimum ignition temperature of a 5 mm dust layer (glowing temperature): ≥ 330 °C - Maximum explosion pressure: ≤ 9.5 bar - KSt-value: ≤ 200 bar m s ⁻¹
Fast or Intensely Burning Characteristics	No information available.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	This material is combustible, but does not ignite readily.
Reactions That Release Gases or Vapours	Fire/decomposition may produce irritating and/or toxic fumes, including Carbon monoxide, Carbon dioxide. *The cellulose polymer begins to decompose at 250°C. The initial products include various glucose and furan products with further formation of acrolein and other respiratory irritants.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	Decomposition takes place from temperatures above: approx. 200 °C
Chemical Stability	This product is unlikely to react or decompose under normal storage conditions.
Conditions to Avoid	Avoid generating dust. Protect from light, moisture/humidity. Keep away from heat and sources of ignition.
Materials to Avoid	Incompatible/reactive with strong oxidising agents.
Hazardous Decomposition Products	Fire/decomposition may produce irritating and/or toxic fumes, including Carbon monoxide, Carbon dioxide. *The cellulose polymer begins to decompose at 250°C. The initial products include various glucose and furan products with further formation of acrolein and other respiratory irritants.
Hazardous Polymerisation	This product will not undergo polymerisation reactions.

11. TOXICOLOGICAL INFORMATION

General Information	Potential health effects: - Ingestion: Significant oral exposure is considered to be unlikely. Available data shows that this product is not harmful. This product is unlikely to cause any irritation problems in the short or long term. - Eye contact: This product is likely to be mechanically irritating. If exposure is minor or brief, no long term effects should result. However, if material is not removed promptly, scratches to surface of the eye may result with long term consequences. - Skin contact: Available data indicates that this product is not harmful. It should present no hazards in normal use. In addition product is unlikely to cause any discomfort in normal use. - Inhalation: Available data indicates that this product is not harmful. In addition product is unlikely to cause any
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discomfort or irritation.

Chronic effects: Long term inhalation of high amounts of any nuisance dust may overload lung clearance mechanism. No significant ingredient is classified as carcinogenic by SWA/NTP/IARC.

Carcinogen Category

None

12. ECOLOGICAL INFORMATION

Ecotoxicity	According to the present state of knowledge negative ecological effects are not expected.
Persistence/Degradability	Not persistent.
Mobility	No information available.
Environmental Fate	Prevent entry into drains and waterways.
Bioaccumulation Potential	No indication of bioaccumulation potential.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Dispose of waste according to applicable legislation. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal.
Special Precautions for Land Fill	Recycle containers wherever possible after careful cleaning.

14. TRANSPORT INFORMATION**Land Transport (Australia)**

ADG Code

Proper Shipping Name	Cellulose Fibres
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (Malaysia)

ADR Code

Proper Shipping Name	Cellulose Fibres
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available

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Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	Cellulose Fibres
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (United States of America)

US DOT

Proper Shipping Name	Cellulose Fibres
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Sea Transport

IMDG Code

Proper Shipping Name	Cellulose Fibres
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	No
Comments	NON-DANGEROUS GOODS: Not regulated for SEA transport.

Air Transport

IATA DGR

Proper Shipping Name	Cellulose Fibres
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available

Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for AIR transport.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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15. REGULATORY INFORMATION

General Information	No Data Available
Poisons Schedule (Aust)	Not Scheduled

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	Not Assessed
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National/Regional Inventories

Australia (AIC)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	232-674-9
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

16. OTHER INFORMATION

Related Product Codes	CELLUL0040, CELLUL0041, CELLUL0042, CELLUL0200, CELLUL0300, CELLUL0400, CELLUL1010, CELLUL1650, CELLUL1660, CELLUL1800, CELLUL2000, CELLUL3005, CELLUL3050, CELLUL4000, CELLUL4400, CELLUL5000, CELLUL5001, CELLUL5005, CELLUL5200, CELLUL6500, CELLUL6600, CELLUL6655, FICELM3500, ROADCE5000
Revision	3
Revision Date	01 May 2020
Key/Legend	<p>< Less Than > Greater Than AICS Australian Inventory of Chemical Substances atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm² Square Centimetres CO₂ Carbon Dioxide COD Chemical Oxygen Demand deg C (°C) Degrees Celcius EPA (New Zealand) Environmental Protection Authority of New Zealand deg F (°F) Degrees Fahrenheit g Grams g/cm³ Grams per Cubic Centimetre g/l Grams per Litre HSNO Hazardous Substance and New Organism IDLH Immediately Dangerous to Life and Health immiscible Liquids are insoluble in each other. inHg Inch of Mercury inH₂O Inch of Water K Kelvin kg Kilogram kg/m³ Kilograms per Cubic Metre lb Pound LC₅₀ LC stands for lethal concentration. LC₅₀ is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours. LD₅₀ LD stands for Lethal Dose. LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals. ltr or L Litre m³ Cubic Metre mbar Millibar mg Milligram mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram mg/m³ Milligrams per Cubic Metre Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present. mm Millimetre mmH₂O Millimetres of Water mPa.s Millipascals per Second N/A Not Applicable NIOSH National Institute for Occupational Safety and Health NOHSC National Occupational Health and Safety Commission OECD Organisation for Economic Co-operation and Development Oz Ounce PEL Permissible Exposure Limit Pa Pascal ppb Parts per Billion ppm Parts per Million ppm/2h Parts per Million per 2 Hours ppm/6h Parts per Million per 6 Hours psi Pounds per Square Inch R Rankine RCP Reciprocal Calculation Procedure STEL Short Term Exposure Limit</p>

TLV Threshold Limit Value

tne Tonne

TWA Time Weighted Average

ug/24H Micrograms per 24 Hours

UN United Nations

wt Weight