



Material Safety Data Sheet Avicel

SECTION 1.1 – PRODUCT IDENTIFICATION

Product Name	:	Avicel
Molecular Formula	:	Not Available.
Molecular Weight	:	Not Available.
CAS No.	:	9004-34-6

SECTION: 1.2 – COMPANY IDENTIFICATION

Company Name: Indenta Chemicals (India) Pvt. Ltd.

Address: 117, The Summit Business Bay, Opp Cinemax, Off. Sir M.V. Road, Near WEH Metro Station, Andheri (E), Mumbai 400 093, India

Telephone #: +91-22-26849600

Fax #: +91-22-26849060

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Name	CAS #	% by Weight
Avicel	9004-34-6	100

Toxicological Data on Ingredients: Not Available.

SECTION 3: HAZARD IDENTIFICATION

Emergency Overview

Powder becomes slippery when wet.

Dry or powdered ingredients are combustible. Dispersal of finely divided dust from products into air may form mixtures that are ignitable and explosive. Minimize airborne dust generation and eliminate sources of ignition.

Appearance white free flowing powder

Physical state Dry powder

Odor Odorless

Eyes Non-irritating.

Skin Non-irritating to the skin.

Inhalation Low inhalation toxicity.

Ingestion No known hazard by swallowing. Ingestion of large amounts may cause gastrointestinal discomfort including blockage, nausea, vomiting and diarrhea.

SECTION 4: FIRST AID MEASURES

Eye contact Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.

Skin contact Wash off with warm water and soap.

Inhalation Remove person to fresh air. If signs/symptoms continue, get medical attention.

Ingestion Drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

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

Treatment is symptomatic and supportive. This product has low oral, dermal and inhalation toxicity.

It is non-irritating to the eyes and skin and non-sensitizing to the skin.

SECTION 5: FIRE AND EXPLOSION DATA

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Specific hazards arising from the chemical Dry or powdered ingredients are combustible. Dispersal of finely divided dust from products into air may form mixtures that are ignitable and explosive. Minimize airborne dust generation and eliminate sources of ignition. According to NFPA 68, (Explosion Venting Guide), the Hazard Class of Dust Deflagrations for microcrystalline cellulose is St-1, the lowest hazard class.

Protective equipment and precautions for firefighters

In the event of fire and/or explosion do not breathe fumes. As in any fire, wear self-contained breathing apparatus and full protective gear.

NFPA Health Hazard 0 Flammability 1 Stability 0 Special Hazards Page –

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions Powder becomes slippery when wet. Avoid dust formation. Avoid breathing dust.

Methods for containment Maintain good housekeeping practices to avoid accumulation of settled dust, especially on overhead surfaces

Methods for cleaning up Sweep up and shovel into suitable containers for disposal.

Other Refer to protective measures listed in sections 7 and 8.

SECTION 7: HANDLING AND STORAGE

Handling Avoid dust formation in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

Occupational exposure controls

Engineering measures Use with local exhaust ventilation.

Personal Protective Equipment

General Information If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

Eye/face protection Safety glasses

Skin and body protection No special precautions required

Hand protection No special precautions required

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance white free flowing powder
Color white to off white
Physical state Dry powder
Odor Odorless
Odor Threshold No information available
PH 5.0 - 7.0 (11 % solids dispersion) (in solution)
Melting Point/Range not determined
Freezing point No information available
Boiling Point/Range Not applicable
Flash Point Not applicable
Evaporation rate Not applicable
Autoignition Temperature Not applicable
Vapor pressure Not applicable
Vapor density No information available
Density No information available
Specific Gravity No information available
Bulk density 0.2 - 0.5 g/cc
Water solubility Insoluble in water
Percent volatile 1 - 5 % water, by weight
Partition coefficient Not applicable
Viscosity No information available
Explosive properties St-1
Minimum Ignition Temperature: 420°C
Oxidizing properties Not applicable

SECTION 10: STABILITY AND REACTIVITY

Stability Stable.
Conditions to avoid Excessive heat, Humid air. Dust formation.
Materials to avoid None in particular.
Hazardous decomposition products Burning produces obnoxious and toxic fumes, Sulfur oxides.
Hazardous polymerization Hazardous polymerization does not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Skin contact Non-irritating (Rabbit).
Eye contact Non-irritating (Rabbit).
Inhalation May cause irritation of respiratory tract. No known hazard by inhalation.
Ingestion No known hazard by swallowing. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Microcrystalline cellulose	>5000 mg/kg (Rat)	>2 g/kg (Rabbit)	>5800 mg/m ³ (Rat) 4 h

Chronic Toxicity

Chronic Toxicity No known effect.

Carcinogenicity Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH). Sensitization Did not cause sensitization on laboratory animals guinea pig Mutagenicity In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.

Target Organ Effects None noted in chronic animal studies.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects Not expected to have significant environmental effects.

Environmental Fate

Persistence and degradability Microcrystalline cellulose is inherently biodegradable in soil.

Bioaccumulation Bioaccumulation is unlikely.

Mobility No information available.

Other adverse effects None known

SECTION 13: DISPOSAL CONSIDERATION

Waste disposal methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261).

This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated packaging

Dispose of in accordance with local regulations.

SECTION 14: TRANSPORT INFORMATION

DOT not regulated

TDG not regulated

ICAO/IATA not regulated

IMDG/IMO not regulated

SECTION 15: OTHER REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

SARA 313 Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard no

Chronic Health Hazard no

Fire Hazard no

Sudden Release of Pressure Hazard no

Reactive Hazard no

CERCLA This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

SECTION 16: ADDITIONAL INFORMATION

This information is provided for documentation purposes only.

The information contained in this Certificate of Analysis and Material Safety Data Sheet is obtained from current and reliable sources. The information contained herein is true and to the best of Indenta Chemicals (India) Pvt. Ltd. knowledge. Nothing herein should be interpreted as a recommendation to infringe existing patents or violate any Laws or Regulation. Final determination of the suitability of the material is the sole responsibility of the user. Customers should purchase products from Indenta Chemicals (India) Pvt. Ltd. with the clear understanding that all products must be used at the customer's own discretion and only after referencing Material Safety Data Sheets (MSDS) and all other relevant technical information specific to the product. Indenta Chemicals (India) Pvt. Ltd. shall not be held responsible for any damages to property or for any adverse physical effects (including injury or bodily harm) caused by insufficient knowledge or the improper use of a product. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties. As with any manufacturing process, Indenta Chemicals (India) Pvt. Ltd. strongly recommends small lab scale testing for evaluation purposes prior to full commercial manufacturing. The information on the Indenta Chemicals (India) Pvt. Ltd. website is obtained from current and reliable sources but makes no representation as to its comprehensiveness or accuracy. Nothing contained herein should be considered as a recommendation by Indenta Chemicals (India) Pvt. Ltd. as to the fitness for any use. As the ordinary or otherwise use(s) of this product is outside the control of Indenta Chemicals (India) Pvt. Ltd., no representation or warranty, expressed or implied is made as to the effect(s) of such use(s) (including damage or injury), or the results obtained. The liability of Indenta Chemicals (India) Pvt. Ltd. is limited to the value of the goods and does not include any consequential loss. Indenta Chemicals (India) Pvt. Ltd. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon.