SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
   Product name: Eastman(TM) Cellulose Acetate CA-320S NF/EP

   Product No.: EAN 983514. 29254-00, P2925401, P2925407, P292540S, E2925401

1.2 Relevant identified uses of the substance or mixture and uses advised against
   Identified uses: Polymer
   Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet
   Manufacturer / Supplier
   Eastman Chemical Company
   200 South Wilcox Drive
   Kingsport, TN 37660-5280 US
   +14232292000

   Visit our website at www.EASTMAN.com or email emnmsds@eastman.com

   National Supplier
   Eastman Chemical B.V.
   Fascinatio Boulevard 602-614
   2909 Capelle aan den IJssel
   The Netherlands
   Telephone: (31) 10 2402 111
   Fax: (31) 10 2402 100

1.4 Emergency telephone number:
   For emergency health, safety, and environmental information: telephone 800-EASTMAN or 423 229-4511 in the United States; or +44 (0)1235 239 670 in Europe.

   For emergency transportation information, call +44(0)1235 239 670; or 800 964214 in England; 01800559700 in Eire; or 423-229-4511 in the United States. Identify the call as a transportation emergency.

SECTION 2: Hazards identification
2.1 Classification of the substance or mixture

The product has not been classified as hazardous according to the legislation in force.

Hazard summary

Physical hazards: Not classified as hazardous.

Health hazards

Inhalation: None known.

Eye contact: Molten material will produce thermal burns.

Skin contact: Molten material will produce thermal burns.

Ingestion: None known.

Other Health Effects: None known.

Environmental hazards: None known.

2.2 Label elements

Not applicable

2.3 Other hazards:

Powdered material may form explosive dust-air mixtures.

SECTION 3: Composition/information on ingredients

3.1 / 3.2 Substances / Mixtures

General information:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Concentration</th>
<th>Additional identification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>cellulose acetate</td>
<td>100%</td>
<td>CAS-No.: 9004-35-7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC No.: 618-380-7</td>
<td></td>
</tr>
</tbody>
</table>

Explanation for Notes (if applicable):
* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
# This substance has workplace exposure limit(s).
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.

Classification

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>cellulose acetate</td>
<td>DSD:</td>
<td>This substance is not classified according to Directive 67/548/EEC.</td>
</tr>
<tr>
<td></td>
<td>CLP:</td>
<td>NOT CLASS</td>
</tr>
</tbody>
</table>

DSD: Directive 67/548/EEC.

The full text for all R- and H-phrases is displayed in section 16.
SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation: Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist. If molten material contacts the eye, immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin contact: Wash with soap and water. Get medical attention if symptoms occur. If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn. Get medical attention.

Ingestion: Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed:
Burns should be treated as thermal burns. The material will come off as healing occurs; therefore, immediate removal from the skin is not necessary.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards: Contact with molten substance/product may cause severe burns to skin and eyes.

Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards: Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or grounding procedures.

5.1 Extinguishing media

Suitable extinguishing media: Water spray. Dry chemical. Carbon Dioxide.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture:
Powdered material may form explosive dust-air mixtures.

5.3 Advice for firefighters

Special fire fighting procedures: Minimize dust generation and accumulation.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Wear appropriate personal protective equipment.

6.2 Environmental precautions: Not regarded as dangerous for the environment.

6.3 Methods and material for containment and cleaning up:

- Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling: Avoid contact with molten material. Mixing cellulose esters in a nonpolar hydrocarbon, such as toluene or xylene, may result in the buildup of static electricity, which can cause a flash fire or an explosion. When adding cellulose ester to any flammable liquid, an inert gas atmosphere should be maintained within the vessel.

7.2 Conditions for safe storage, including any incompatibilities: Keep container closed. Store at temperatures not exceeding 30°C.

7.3 Specific end use(s): Polymer

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

- Occupational exposure limits

Country specific exposure limits have not been established or are not applicable unless listed below.

8.2 Exposure controls

- Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

- Individual protection measures, such as personal protective equipment

  - General information: Eye bath. Washing facilities.

  - Eye/face protection: It is a good industrial hygiene practice to minimize eye contact. Wear a face shield when working with molten material.
Skin protection

Hand protection: It is a good industrial hygiene practice to minimize skin contact. When material is heated, wear gloves to protect against thermal burns.

Other: No data available.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Hygiene measures: Observe good industrial hygiene practices.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

**Appearance**
- **Physical State:** Solid
- **Form:** powder
- **Color:** white
- **Odor:** Odorless
- **Odor Threshold:** Not determined.
- **pH:** No data available.
- **Melting Point:** No data available.
- **Boiling Point:** No data available.
- **Flash Point:** not applicable, combustible solid
- **Evaporation Rate:** Not determined.
- **Flammability (solid, gas):** No data available.
- **Flammability Limit - Upper (%):** No data available.
- **Flammability Limit - Lower (%):** No data available.
- **Vapor pressure:** Not determined.
- **Vapor density (air=1):** No data available.
- **Specific Gravity:** 1.31 - 1.32
- **Solubility(ies)**
  - **Solubility in Water:** Negligible
  - **Solubility (other):** No data available.
- **Partition coefficient (n-octanol/water):** No data available.
- **Autoignition Temperature:** No data available.
- **Decomposition Temperature:** Thermal stability not tested. Low stability hazard expected at normal operating temperatures.
- **Dynamic Viscosity:** No data available.
Kinematic viscosity: Not determined.
Explosive properties: No data available.
Oxidizing properties: No data available.
Dust Explosion Class: St 2 - strong explosion

SECTION 10: Stability and reactivity

10.1 Reactivity: None known. Materials containing similar structural groups are normally stable.
10.2 Chemical stability: Not fully evaluated.
10.3 Possibility of hazardous reactions: None known.
10.4 Conditions to avoid: Avoid dust formation.
10.5 Incompatible materials: Strong oxidizing agents.
10.6 Hazardous decomposition products: Carbon Monoxide. Carbon Dioxide.

SECTION 11: Toxicological information

Information on likely routes of exposure
Inhalation: None known.
Ingestion: None known.
Skin contact: Molten material will produce thermal burns.
Eye contact: Molten material will produce thermal burns.

11.1 Information on toxicological effects

Acute Toxicity

Oral
Product: No data available.
Specified substance(s) cellulose acetate No data available.

Dermal
Product: No data available.
Specified substance(s) cellulose acetate No data available.

Inhalation
Product: No data available.
Specified substance(s) cellulose acetate No data available.
Repeated dose toxicity

Product: No data available.
Specified substance(s)
cellulose acetate No data available.

Skin corrosion/irritation:

Product: No data available.
Specified substance(s)
cellulose acetate No data available.

Serious eye damage/eye irritation:

Product: No data available.
Specified substance(s)
cellulose acetate No data available.

Respiratory or skin sensitization:

Product: No data available.
Specified substance(s)
cellulose acetate No data available.

Mutagenicity

In vitro

Product: No data available.
Specified substance(s)
cellulose acetate No data available.

In vivo

Product: No data available.
Specified substance(s)
cellulose acetate No data available.

Carcinogenicity

Product: No data available.
Specified substance(s)
cellulose acetate No data available.

Reproductive toxicity

Product: No data available.
Specified substance(s)
cellulose acetate No data available.

Specific target organ toxicity - single exposure

Product: No data available.
Specified substance(s)
cellulose acetate No data available.
Specific target organ toxicity - repeated exposure

Product: No data available.

Specified substance(s)
cellulose acetate No data available.

Aspiration hazard

Product: No data available.

Specified substance(s) cellulose acetate No data available.

Other adverse effects: No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity

Fish
Product: No data available.

Specified substance(s) cellulose acetate No data available.

Aquatic invertebrates
Product: No data available.

Specified substance(s) cellulose acetate No data available.

Chronic Toxicity

Fish
Product: No data available.

Specified substance(s) cellulose acetate No data available.

Aquatic invertebrates
Product: No data available.

Specified substance(s) cellulose acetate No data available.

Toxicity to Aquatic Plants
Product: No data available.

Specified substance(s) cellulose acetate No data available.

12.2 Persistence and degradability

Biodegradation
Product: No data available.
Specified substance(s)  
cellulose acetate  

**Biological Oxygen Demand:**  
*Product*  
Specified substance(s)  
cellulose acetate  
No data available.

**Chemical Oxygen Demand:**  
*Product*  
Specified substance(s)  
cellulose acetate  
No data available.

**BOD/COD ratio**  
*Product*  
Specified substance(s)  
cellulose acetate  
No data available.

12.3 Bioaccumulative potential  
*Product:*  
Specified substance(s)  
cellulose acetate  
No data available.

12.4 Mobility in soil:  
No data available.

**Known or predicted distribution to environmental compartments**  
cellulose acetate  
No data available.

12.5 Results of PBT and vPvB assessment:  
cellulose acetate  
No data available.

12.6 Other adverse effects:  
No data available.

### SECTION 13: Disposal considerations

13.1 Waste treatment methods  

**General information:**  
No data available.

**Disposal methods:**  
Dispose of waste and residues in accordance with local authority requirements. Incinerate.

**European Waste Codes**  
Comply with requirements of waste disposal legislation and any local authority requirements.

### SECTION 14: Transport information
Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

ADR/RID
Class not regulated

IMDG - International Maritime Dangerous Goods Code
Class not regulated

IATA
Class not regulated

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

TSCA (US Toxic Substances Control Act): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): This product is listed on the DSL or otherwise complies with CEPA new substance notification requirements.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.

Inventory of Existing Chemical Substances in China: All components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

15.2 Chemical safety assessment: None.

SECTION 16: Other information
Revision Information: Not relevant.

Key literature references and sources for data: No data available.

Wording of the R-phrases and H-statements in section 2 and 3: NOT CLASS = Not classified

Training information: No data available.

Regulation (EC) No. 1272/2008

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SDS No.: 
Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.