

# MATERIAL SAFETY DATA SHEET

## PRODUCT INFORMATION

|                  |  |  |  |
|------------------|--|--|--|
| Product Identity | Corn Products™ / Casco™ Industrial Corn Starch, 030050   |  |  |
| Product Use      | Corn starch for industrial application   |  |  |
| Company          | Corn Products U.S.<br>5 Westbrook Corporate Center<br>Westchester, IL 60154 USA<br>Info/Emergency Phone: (708) 551-2600<br>Fax: (708) 551-2510<br>Business Hours: Mon – Fri. 7:30 a.m. - 5:00 p.m.<br>(Central Time) | Casco, Inc.<br>405 The West Mall, Suite 600,<br>Etobicoke, Ontario M9C 0A1 Canada<br>Info/Emergency Phone: (416) 620-2300<br>Fax: (416) 620-4488<br>Business Hours : Mon – Fri. 7:30 a.m. – 6:00 p.m.<br>(E.S.T) |  |

## COMPOSITION/INFORMATION ON INGREDIENTS

| Substance   | % or Range | CAS Number | EINICS Number | Toxicology Data    |                   |
|-------------|------------|------------|---------------|--------------------|-------------------|
| Corn Starch | ≤100       | 9005-25-8  | 232-679-6     | LD <sub>50</sub> : | No data available |
|             |            |            |               | LC <sub>50</sub> : | No data available |

## HAZARDS IDENTIFICATION

|              |   |
|--------------|---|
| Toxicity     | Inhalation of dust may irritate the nose, throat, and upper respiratory tract. Skin contact is not known to be hazardous to health. Eye contact may cause mild transient irritation. Ingestion of quantities sufficient to produce health effects is not a plausible route of exposure in industrial use. |
| Reactivity   | Product is non-reactive under foreseeable conditions of use.  |
| Flammability | See <i>Fire and Explosion Hazards and Firefighting Measures</i> .   |
| Corrosivity  | This product is non-corrosive.  |
| S Phrase(s)  | None designated.  |
| R Phrase(s)  | None designated.  |

## FIRST AID MEASURES

|              |  |
|--------------|--|
| Inhalation   | Remove the subject from the source of exposure.  |
| Skin Contact | Wash affected area with water.   |
| Eye Contact  | Flush eyes with water for at least fifteen minutes. Seek medical assistance, if necessary. |
| Ingestion    | Not available.   |

## FIRE AND EXPLOSION HAZARDS AND FIREFIGHTING MEASURES

|                                 |  |                   |                                |                   |
|---------------------------------|--|-------------------|--------------------------------|-------------------|
| Hazards                         | High concentrations of product dust from this product may burn explosively if ignited by static charges or other ignition sources. The conditions under which this may occur are not readily predictable. Avoid open flames, electrical arcs, static electricity, and/or welding in areas of excessive dusting. Ensure that conveying and handling equipment is securely grounded. Fire and explosions may release carbon monoxide, smoke, and irritant combustion byproducts. |                   |                                |                   |
| Extinguishing media             | Water, carbon dioxide, or dry chemical.  |                   |                                |                   |
| Fire and Explosion Hazards Data | Flashpoint:  | No data available | Autoignition temperature:      | No data available |
|                                 | Lower Explosive Concentration:   | No data available | Upper Explosive Concentration: | No data available |

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### PREVENTIVE MEASURES

#### ◆ Accidental Release Measures

|                           |   |
|---------------------------|---|
| Control Measures          | Eliminate sources of ignition and static charge. Dry sweep spilled material to impervious containers. Avoid direct release to environmental media.  |
| Personal Protection       | Avoid contact with skin, eyes, and mucous membranes. Protective equipment is not required for clean up unless high dust levels exist. In such cases, wear respiratory protection appropriate for particulate matter in air, and that is approved and qualified. |
| Environmental Precautions | Dispose of residues in compliance with applicable national, state/provincial, and local regulations.  |

#### ◆ Handling and Storage

|          |  |
|----------|--|
| Handling | Avoid contact with eyes and mucous membranes. Avoid creating dust clouds.  |
| Storage  | Store in a cool, dry place away from sources of ignition and incompatible materials (see Stability and Reactivity for incompatible materials). Store in a tightly closed container and protected from light. |

#### ◆ Exposure Controls and Personal Protection

|                        |   |
|------------------------|---|
| Engineering Controls   | Where use of the product may generate airborne dust, use appropriate measures such as local exhaust ventilation to maintain air concentrations of the components to within their respective exposure limits.  |
| Respiratory Protection | If any exposure level exceeds a permissible limit, use a respirator having a configuration (class, face piece, filter, etc.) appropriate to the concentration and approved and qualified for the application. |
| Eye Protection         | Wear appropriate eye protection such as goggles or glasses if there is the potential for eye contact with the product.  |
| Skin Protection        | Skin protection is not normally required. If it is desired, cloth or synthetic gloves are suitable.   |

### PHYSICAL AND CHEMICAL PROPERTIES

|               |             |            |                                     |   |  |                           |
|---------------|-------------|------------|-------------------------------------|---|--|---------------------------|
| Appearance    | Form:       | Powder     | Color/colour:                       | White   | Odor/odour:                                      | None or faint cereal-like |
| Physical Data | Moisture %: | 9.0 - 12.5 | Packing Density:                    | 0.50 - 0.70 g/cc<br>(31 - 44 lbs./ft <sup>3</sup> ) | Water Solubility:                                | Not Soluble               |
|               | pH Value:   | 4.8 - 6.0  | Odor/odour<br>Threshold:<br>Minimum | No data available                                   | Vapor/vapour<br>Pressure:                        | None                      |
|               |             |            | Ignition Energy :                   | 30 - 60<br>milliJoules(mJ)                          | Minimum Ignition<br>Temperature:<br>(dust cloud) | 300 - 400°C               |

### STABILITY AND REACTIVITY

|   |   |
|---|---|
| Conditions to avoid                     | This product is stable under normal conditions of temperature and pressure. |
| Materials to avoid                      | Oxidizing/oxidising agents  |
| Decomposition products                  | Carbon monoxide; carbon dioxide; irritant gasses, and smoke                 |
| Dangerous polymerization/polymerisation | Will not occur.   |
| Dangerous reactions                     | None are known or reasonably foreseeable                                    |

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### TOXICOLOGICAL INFORMATION

|                           |  |   |   |  |
|---------------------------|--|---|---|--|
| Health Hazards of Product | Routes of Entry:   | Inhalation and ingestion. Not absorbed through skin or mucous membranes.  |   |  |
|                           | Acute Effects:   | Inhalation may irritate the nose, throat, and respiratory tract. Eye contact may cause mild transient irritation. Ingestion of quantities sufficient to produce adverse health effects is not a plausible route of exposure in industrial use. Skin contact is not known to be hazardous. |   |  |
| Exposure Limits           | Chronic Effects:   | Adverse effects from chronic inhalation or ingestion are not known.   |   |  |
|                           | ACGIH TLVs, as Particulates Not Otherwise Classified:  | 10 mg/m <sup>3</sup> (inhalable fraction)<br>3 mg/m <sup>3</sup> (respirable fraction)  | OSHA PELs, as Particulates Not Otherwise Regulated: | 15 mg/m <sup>3</sup> (total dust)<br>5 mg/m <sup>3</sup> (respirable fraction) |
| Carcinogenicity           | IARC:  | No  | NTP (USA):  | No   |
|                           | ACGIH:   | No  | OSHA (USA):   | No   |
| Reproductive Toxicity     | This product is not classified as a reproductive toxin by any authoritative body or regulatory agency. |   |   |  |

### ECOLOGICAL INFORMATION

In its intended manner of use, this product should not be released directly into environmental media. However, it is readily biodegradable in the natural environment.

### TRANSPORT INFORMATION

Shipment of this product is not controlled by ICAO, USDOT, or Canadian TDG regulations, or Mexican NOM-004-SCT-2000 regulations.

### REGULATORY INFORMATION

|               |   |  |
|---------------|---|--|
| United States | TSCA:   | All constituents are on EPA's TSCA inventory.                                      |
|               | CERCLA:   | Contains no reportable quantity (RQ) substances per Sections 302/304 of EPA.       |
|               | SARA:   | Contains no chemicals subject to the reporting requirements of Section 313 of EPA. |
|               | FDA:  | Not applicable.  |
| Canada        | WHMIS Classification(s):  | Not applicable.  |
|               | DSL:  | Starch is included.  |
|               | Food and Drug Act:  | Not applicable.  |
| Europe        | Exempt from OECD (793/93/EEC) List for Evaluation of High Production Volume (HPV) Chemicals EU EINECS 232-679-6 |  |
| Elsewhere     | Present on Japan (ENCS), Phillipines (PICCS), Austrailia (AICS) and China's Product Inventory List              |  |

### PREPARATION INFORMATION

|                            |   |   |
|----------------------------|---|---|
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| Revision Information       | Date of revision:   | November 25, 2009   |
|                            | Supersedes previous MSDS dated:   | October 9, 2009   |

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