

SAFETY DATA SHEET

FEBRUARY 2020

BIOSAK[®] Compostable Plastic Films

This Safety Data Sheet is directed principally to processors, formulators and all users of this substance.

The description of physical, chemical and toxicological properties, as well as the advise on handling, is based on past experience and currently available information.

If you have any questions regarding the hazards associated with the use of this substance, please contact the Company named in Section 1.

1) IDENTIFICATION OF THE SUBSTANCE/PREPARATION, AND OF THE COMPANY

IDENTIFICATION OF THE SUBSTANCE: BIOSAK Compostable Film CHEMICAL FAMILY: BIOSAK thermoplastic biodegradable polymer film USE OF THE SUBSTANCE: Production of biodegradable plastics, i.e. bags, liners, shopping bags. IDENTIFICATION OF THE COMPANY: W. Ralston (Canada) Inc. ADDRESS: 135 East Drive, Brampton, Ontario, Canada L6T 1B5 PHONE: 905 791-3980

2) COMPOSITION/INFORMATION ON INGREDIENTS

CAS NUMBER: N/A COMPOSITION: Starch, synthetic polyester, plasticizers. CONCENTRATION: 100% HAZARDOUS COMPONENTS: None (R-phrases: none, S-phrases: none)

3) HAZARDS IDENTIFICATION

MAIN HAZARD: None that require special labelling.

INGESTION: No current information available.

SKIN CONTACT: No evidence of harmful effects according to currently available information. EYE CONTACT: No evidence of harmful effects according to currently available information SKIN ABSORPTION: No evidence of harmful effects according to currently available information INHALATION : No evidence of harmful effects, according to currently available information, as regards the vapor generated at room temperature.

4) FIRST AID MEASURES

No special emergency measures are necessary for the normal use of the substance. EYE CONTACT: Flush eyes with clean water for several minutes.

SKIN CONTACT: Wash skin with soap and water to eliminate residuals.

INGESTION: Remove residuals from mouth. If large amounts are swallowed, consult a physician.

INHALATION: Remove from exposure.

5) FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: CO₂, Dry Chem, Foam, Water Spray

PROTECTIVE EQUIPMENT: Use approved self-contained breathing apparatus. UNUSUAL FIRE HAZARDS: N/E.

HAZARDOUS COMBUSTION SUBSTANCES : Toxic gases, oxides of carbon.

EXPLOSION HAZARDS: The substance, as shipped, does not pose any dust explosion hazard because it contains essentially no dust particles in size range to support dust explosion. If the substance pellets are ground into powder (75µm or less), then the powder would pose dust explosion hazard.

6) ACCIDENTAL RELEASE MEASURES

No release to air is expected.

ON SOIL: Use normal good housekeeping procedures for clean-up of substance pellets. Provide protection against slipping hazard.

IN WATER: The substance tends to sink. Vacuum up spill pellets and place into drums for disposal.

WASTE DISPOSAL: See Section 13.

7) HANDLING AND STORAGE

STORAGE: Store in cool, dry, well-ventilated, low fire risk area, away from heat sources. Take precautionary measures against static discharges.

HANDLING: Handle in well-ventilated areas. If dust generation is expected, e.g. during recycling, milling, etc., use dust respirator.

8) EXPOSURE CONTROL/PERSONAL PROTECTION

GENERAL PRECAUTIONS: Good industrial hygiene should be adopted.

VENTILATION: All processing should be carried out in well ventilated areas.

HAND PROTECTION: General purpose gloves. If in molten state, use approved heat resistant gloves.

EYE PROTECTION: Safety glasses.

BODY PROTECTION: Lightweight protective industrial clothing.

RESPIRATORY PROTECTION: If dust generation occur, use approved dust mask. During normal melt processing conditions, vapors of water and glycerol escape from the machinery exit(s);

to comply with your local Regulations for exposure limits, a local aspiration of vapors may be required.

9) PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Film COLOR: Variety of colors available. ODOR : Mild BOILING POINT: (760MMHg)°C: N/A MELTING POINT °C: 110°C DENSITY: (H20=1): 1.3 VAPOR PRESSURE @20°C: N/A VAPOR DENSITY (Air=1): N/A WAPOR DENSITY (Air=1): N/A MOLECULAR WEIGHT: N/E % VOLATILES (by volume): N/A EVAPORATION RATE (Water=1): N/A WATER SOLUBILITY: Only of its plasticizers. 10) STABILITY AND REACTIVITY STABILITY: Stable under normal storage conditions. SUBSTANCES TO AVOID: Oxidizing or reducing agents. CONDITIONS TO AVOID: Starts to decompose over 200°C. HAZARDOUS POLYMERIZATION OCCURS: No.

11) TOXICOLOGICAL INFORMATION

According to information available to us, the substance is not harmful to health if handled correctly and processed according to the given recommendations.

ACUTE TOXICITY: LD50 not available.

SKIN : No available information.

ORAL : No available information

EYES : No available information

12) ECOLOGICAL INFORMATION

The substance is fully biodegradable when introduced into active biological environments (e.g. composting plants). The biodegradation process is affected by temperature, humidity, pH and substratum activity.

13) DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state and federal regulations.

14) TRANSPORT INFORMATION

SEA TRANSPORT: The substance is not subjected to restrictions. AIR TRANSPORT: The substance is not subjected to restrictions. LAND TRANSPORT: The substance is not subjected to restrictions.

15) REGULATORY INFORMATION

LABELLING: The substance is not subjected to labelling. SYMBOLS: None. R-PHRASES: None. S-PHRASES: None.

Disclaimer:

The opinions expressed here are those of W. Ralston (Canada) Inc. We believe that the information contained herein is current as of the date of this MSDS. The information refers to the BIOSAK Compostable Film as delivered by W. Ralston (Canada) Inc. Since the use of these opinions and of this information and the conditions of use of the substance are not under the control or supervision of W. Ralston (Canada) Inc., it is the user's obligation to apply the conditions of safe use of the substance.