



CHROMOGREEN MATERIAL SAFETY DATA SHEET (MSDS)

Product: Chromogreen Film (Bio-based Composite)

1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

1.1. Identification of the Product Product Name Composition / Chemical Formula Product Grade

Chemical Family Dangerous components

1.2. Description

: Chromogreen Bags : See description 1.2 : Bio-based composite : Bio-based composite made from starch and vegetable oil derivatives: None

The original of the raw materials come from sustainable resources: starch from cassava and plasticizer derivative from vegetable oil, that will breakdown into carbon dioxide, water and biomass

1.3. Company Identification

Company Name Address

Telephone/Email

Chromogreen.com

C/o Chromozome Network Private Limited : 15th Floor Concord Towers,
U B City, Bangalore, Karnataka, India 560001 [+919901210003](tel:+919901210003)
sales@chromogreen.com



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2. USE

The product(s) are intended for use in the manufacture of environmental friendly shopping bags, carry-bags and garbage bags.

3. HAZARDS IDENTIFICATION

Not Applicable There is no hazardous warning for its components.

4. FIRST AID MEASURES

Ingestion : Not ordinarily required. Inhalation of degradation products during heating of product : supply fresh air. Skin contact with molten product : remove contaminated clothes. Wash skin with soap and water. Do not remove solidified product from skin. Treat as for thermal burn. Seek medical assistance. Eye contact : Flush with water if irritation occurred. Note to physician : None/Treat symptomatically.

5. FIRE FIGHTING MEASURE

Does not present specific fire hazard, but will burn if ignited.

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Flash point: Explosion Limits (upper/Lower): Suitable extinguisher agents: extinguishing powder or water spray. Larger fires can be fought with large water spray or alcohol resistant foam. Combustion products: In case of fire carbon dioxide and water vapor are released. Protective equipment: Normal personal protective equipment (helmet, safety glass and safety shoes)

6. ACCIDENTAL RELEASE MEASURES

Methods for cleaning up: shovel and sweep or use industrial vacuum cleaner as for pellets. Put into containers for reclaiming or disposal as permitted by applicable national, state and/or local regulations.

7. STORAGE AND HANDLING

1. Improper storage can initiate degradation that will affect the product's physical properties.
2. Containers or sacks should be kept tightly closed, when not in use.
3. Precautions for storage place : natural ventilation and dry place.
4. Avoid direct contact with water.

Not applicable Not applicable. Use water fog, dry chemical or carbon dioxide,

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

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General ventilation

Protective clothing Eye protection

9. Appearance Stability Solubility in Water at 80 °C Vapour pressure Density (ASTM D792) Melt flow index (170 °C, 5 Kg) (ASTM D1238) Melting Temperature (ASTM D3418) Ash Content Flammability Percent Volatile by Volume Auto-ignition temperature

10. Stability Hazardous polymerization Material to avoid Conditions to avoid Hazardous decomposition products

: adequate ventilation and/or engineering controls must be employed in high temperature processing. : not ordinarily required. : safety goggles.

PHYSICAL AND CHEMICAL PROPERTIES

STABILITY AND REACTIVITY

11. TOXICOLOGICAL INFORMATION

Classified as non toxic with LD considered > 5000 mg/Kg (According to OECD 423 Test Guideline).

: Slightly yellowish pellet : Stable : 200 g/L : Not applicable

: 1.23 – 1.27 g/cm³ : 15 - 20 g/10 min

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: 170 – 190 °C. : Max. 1.0 %

: Not flammable : Nil : Not applicable

: Stable : Will not occur : Strong oxidizing agents : Direct contact with water : Not applicable

12. ECOLOGICAL INFORMATION

Environmental toxicity : Eco toxicity based on EN 13432 (2000), ASTM D 6400-04, and ISO 17088 (2008) are fulfilled for barley plants. 10% concentration after composting Chromogreen bio-based raw material, no residuals were left such as metabolites, un-degraded components, and inorganic components that event a negative influence on the germination and growth of barley plants.

Environmental effects in soil and water: when this material product are release into soil, this material is expected to biodegrade by microorganism without any toxic residue. Environmental effects in air: Not applicable.

13. DISPOSAL CONSIDERATION

This material will breakdown into carbon dioxide and water without any toxic residue. Whatever cannot be recycled like packaging, label, transport container can be disposed as per local regulations and good engineering practice.

14. TRANSPORTATION INFORMATION

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This material is not hazardous to transport. DOT regulations Land Transport ADR/RID (cross border) Maritime transport IMDG

Air transport ICAO-TI and IATA-DGR

: no hazard class: none : none : none.

15. REGULATORY INFORMATION

There are no established exposure limits for the mixture, however, dust and fumes from processing should be ventilated adequately. To the best of our knowledge: None of the mixture components are on the health & safety reporting list.

None of the mixture components are in this product are under a Chemical Test Rule. None of the mixture components are listed under TSCA section 12b (export notification). None of the mixture components in this material have an SNUR under TSCA. None of the mixture components in this material have an RQ under CERLCA. None of the mixture components in this material have a TPQ under SARA. None of the mixture components in this material is reported under section 313.

Clean Air Act: This material does not contain any hazardous air pollutants.

Clean Water Act : None of the chemicals in this product are listed as hazardous substances under the CWA. None of the

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chemicals in this product are listed as priority pollutants under CWA. None of the chemicals in this product are listed as toxic pollutants under CWA.

OSHA : None of the chemicals in this product are considered highly hazardous by OSHA.

California Prop 65 : California no significant risk level : none of the chemicals in this product are listed. European / International Regulations European labelling in accordance with EU/EC Directives

Hazard Symbols Risk Phrases Safety Phrases WGK

: not available : no Information available. : no Information available. : no Information available.

16. OTHER INFORMATION

Employers should use this information as basis and/or supplement to other information and data gathered and should make independent judgment of suitability of this information to ensure proper use and to protect the health and safety of employees and the environment. This information is furnished without warranty and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with an other product or process is the responsibility of the user.

17. ABBREVIATIONS

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Abbreviations used OSHA = Occupational Safety & Health Administration (USA)

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