

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: GreenGuard®- CM, DC, SB, SL

SUPPLIER: Pactiv Corporation, Building Products Group
2100 RiverEdge Parkway, Suite 175
Atlanta, GA 30328

CONTACTS: For additional product and/or MSDS information, please contact your Pactiv Corporation sales representative or customer service representative. (1-800-227-7339, Extension 7309)

2. COMPOSITION / INGREDIENTS INFORMATION

Component:	CAS No.	Exposure Limits
Hexabromocyclododecane	03194-55-6	15 mg/m ³ OSHA PEL / TWA 10 mg/m ³ ACGIH TLV / TWA

3. HAZARDS IDENTIFICATION

U.S. OSHA HAZARD COMMUNICATION: Product assessed in accordance with OSHA requirements, per 29 CFR 1910.1200, and determined to be not hazardous.

EFFECTS OF OVEREXPOSURE: No significant effects expected.
EMERGENCY RESPONSE DATA: Colored foam plastic sheathing. Fire generates dense smoke, toxic fumes
HMIS HAZARD IDENTIFICATION CODE: (Health: 0) (Flammability: 1) (Reactivity: 0)
NFPA HAZARD IDENTIFICATION CODE: (Health: 0) (Flammability: 1) (Reactivity: 0)

4. FIRST AID MEASURES

EYE CONTACT: Not expected to be a problem. Loosened particles or fibers may cause slight discomfort, such as that experienced from airborne dust. Flush eyes with water.
SKIN CONTACT: Not expected to be a problem. Wash exposed skin with soap and water.
INHALATION: Not expected to be a problem. If adverse effects occur, remove from exposure.
INGESTION: Not expected to be a problem. No significant health hazards identified. Ingestion of large amounts may cause gastrointestinal distress requiring medical attention.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Agents approved for Class A hazards, including carbon dioxide, foam, dry chemical, water fog
SPECIAL FIREFIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire-exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.
FIREFIGHTING EQUIPMENT: Positive pressure self-contained breathing apparatus
UNUSUAL FIRE & EXPLOSION HAZARDS: This material burns vigorously and emits dense, black, toxic smoke. Well-established fires are difficult to bring under control.
Flash Point: 500° F. + (ASTM D 1929)
Autoignition Temperature: 900° F. +
Flammable Limits: LEL and UEL not determined
HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide, possible hydrocarbon fragments, monomers, acrolein, halogens, acids, ketones, aldehydes

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6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Not expected to be a problem.
RELEASE / SPILL PROCEDURES: Pick-up and dispose as normal refuse.
ENVIRONMENTAL PRECAUTIONS: Normal good environmental housekeeping, i.e., prevent spills from entering storm sewers / drains, and prevent disposal in local soil.
PERSONAL PRECAUTIONS: See Section 8.

7. HANDLING AND STORAGE

HANDLING: No special precautions are necessary beyond normal good hygiene and workplace safety practices. Provide adequate ventilation.
STORAGE: Store away from heat, ignition sources, open flame, combustible materials, strong oxidizers.
PRECAUTIONS: Keep away from sources of ignition, e.g.: heat and open flame.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION: No special equipment required. Use in adequately ventilated area.
RESPIRATORY PROTECTION: No special equipment required under ordinary conditions of use and with adequate ventilation.
EYE PROTECTION: No special equipment required. However, use of eye protection is good practice.
SKIN PROTECTION: No special equipment required. However, use of protective gloves / clothing is good practice.
EXPOSURE LIMITS: No recognized exposure limits established for components of this product.

9. TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Tinted, foamed plastic sheathing
AUTOIGNITION TEMP.: 900° F. +
COLOR: Typically Green or Blue-Green
FLAMMABILITY: Not Classified
FLASH POINT: 500° F. +
FREEZING POINT: Not Established
MELTING POINT: 200° F. +
ODOR: Slightly sweet, slight plastic odor
SOLUBILITY IN WATER: Negligible
SPECIFIC GRAVITY: 0.07 (Water = 1.0)

10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.): Stable
CONDITIONS TO AVOID: Extreme heat and ignition sources, e.g.: sparks, open flames
INCOMPATIBILITY: Strong oxidizers; aromatic and chlorinated hydrocarbons
HAZARDOUS DECOMPOSITION: Incomplete combustion can produce acids, acrolein, aldehydes, carbon monoxide, halogens, ketones, monomers, possible hydrocarbons
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL DATA (Based on tests of similar products and/or the components, literature, experience)

ORAL TOXICITY (Rat): Practically non-toxic (LD50: > 2000 mg/kg)
DERMAL TOXICITY (Rabbit): Practically non-toxic (LD50: > 2000 mg/kg)
INHALATION TOXICITY (Rat): Practically non-toxic (LC50: > 5 mg/ L)
EYE IRRITATION (Rabbit): Practically non-irritating (Draize Score: $\geq 0, \leq 6$)
SKIN IRRITATION (Rabbit): Practically non-irritating (Primary Irritation Index: ≤ 0.5)
CARCINOGENIC COMPONENTS: None at 0.1% + concentration identified by IARC, NTP, OSHA;

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12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: Ecological testing of this product has not been conducted. Components of this product photodegrade under lengthy exposures to UV light. Their proper incineration in state-of-the art incinerators equipped with after-burners yields carbon dioxide and water. Polymer materials may not decompose in modern sanitary landfills. Component materials may be recycled where adequate collection infrastructure and appropriate recycling facilities exist.

13. DISPOSAL CONSIDERATIONS (Based on evaluations of similar products and/or the components)

WASTE DISPOSAL: Dispose of waste as normal refuse, in accordance with local regulations.

RCRA INFORMATION: The unused product is not, in our opinion, specifically listed by U.S. EPA as a hazardous waste [40 CFR 261D]. It is not formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity, and it is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure. Used product may be regulated, however.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: Not Regulated
 INTERNATIONAL SEA TRANSPORT / I.M.O.; I.M.D.G.: Not Determined / Not Regulated
 INTERNATIONAL AIR TRANSPORT / I.A.T.A.; I.C.A.O.: Not Determined / Not Regulated
 EUROPEAN ROAD & RAIL / A.D.R.; R.I.D.: Not Determined
 CANADIAN TRANSPORT OF DANGEROUS GOODS: Not Determined

15. REGULATORY INFORMATION

CERCLA 102A / 103: Product is not a Reportable Hazardous Substance under 40 CFR 302.4.
 OSHA: Product is unregulated "Article" under OSHA HazCom 29 CFR 1910.1200 (b)(6)(iv).
 TSCA: All components comply with U.S. Toxic Substances Control Act requirements.
 SARA III, Sec. 302: Product is not an "Extremely Hazardous Substance" under 40 CFR 355.
 SARA III, Sec. 311/312: No Reportable Hazard Categories under 40 CFR 370.
 SARA III, Sec. 313: Components not reportable under Toxic Release program, per 40 CFR 372.
 CALIFORNIA WARNING:
 PROPOSITION 65: This product may contain one or more chemicals known to the State of California to cause cancer.

16. OTHER INFORMATION

CHEMICAL NAMES: Foamed Polystyrene
 INTENDED USE: Building Insulation Material
 INGREDIENTS: Major Components: Polystyrene CAS No. 09003-53-6
 Chlorodifluoroethane CAS No. 00075-68-3
 Monochloroethane CAS No. 00075-00-3
 Propane CAS No. 00074-98-6
 Minor Components: Organic / Inorganic Pigments / Dyes Mixtures
 Hexabromocyclododecane CAS No. 03194-55-6

Information provided by sources external to our company and set forth herein is offered in good faith as accurate, but without guarantee. Safety precautions contained herein cannot anticipate all individual and unique situations. Conditions of use and suitability of the product for particular uses are beyond our control. All risks of use of the product are, therefore, assumed by the user, and we expressly disclaim all warranties of every kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the product. Nothing herein is intended as recommendation for uses which infringe valid patents or as extension of license under valid patents. Appropriate warnings and safe handling procedures should be provided to users.

PREPARED BY: Pactiv Corporation
 Product Stewardship Office
 2651 Brickyard Road
 Canandaigua, New York 14424-7990

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