

Safety Data Sheet

Green Umbrella™ ColorFlash



Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS, Australian WorkSafe, New Zealand, Japanese, and European Union Standards

1. PRODUCT IDENTIFICATION

Product Name:	Green Umbrella™ ColorFlash
Product Use:	Concrete Colorant
Effective Date:	October 1, 2014
Manufacturer Information:	Green Umbrella™ 20 Jet View Rochester, NY Telephone Number: 844-200-7336
USA Emergency Phone Number:	
For Medical Emergency	Call 1-800-535-5053
Outside the United States	Call collect +1-352-323-3500

2. COMPOSITION and INFORMATION ON INGREDIENTS

EU LABELING/CLASSIFICATION: This product does not meet the definition of any hazard class as defined by the European Union Council Directive 67/548/EEC or subsequent Directives. The toxicological properties of this product have not been thoroughly investigated.

EU CLASSIFICATION: Not applicable.

EU RISK PHRASES: Not applicable.

TSCA Status: The components of this product are not included in the public TSCA Inventory. According to the manufacturer/importer of the components of this product, "All components of this product are in compliance with the Toxic Substance Control Act."

CHEMICAL NAME	CAS #	EINECS #	AICS Inventory Listing	% w/v	EU CLASSIFICATION FOR COMPONENTS
Black Dye	Proprietary	Unlisted	Listed	Proprietary	Hazard Classification: Not established. Risk Phrases: Not established.
Blue Dye	Proprietary	Unlisted	Listed	Proprietary	Hazard Classification: Not established. Risk Phrases: Not established.
Brown Dye	Proprietary	Unlisted	Not Listed	Proprietary	Hazard Classification: Not established. Risk Phrases: Not established.
Red Dye	Proprietary	Unlisted	Listed	Proprietary	Hazard Classification: Not established. Risk Phrases: Not established.
Yellow Dye	Proprietary	Unlisted	Not Listed	Proprietary	Hazard Classification: Not established. Risk Phrases: Not established.

NOTE: ALL Canadian WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2004 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. All European Union, Australian (NOHSC:2011, 8.30-8.48) information, and Japanese Industrial Standard (JIS Z 7250: 2000) required information is included. See Section 16 for full text of Ingredient Risk Phrases

For more information please visit:
www.GreenUmbrellaSystems.com

3. HAZARD IDENTIFICATION

EU LABELING/CLASSIFICATION: This product does not meet the definition of any hazard class as defined by the European Union Council Directive 67/548/EEC or subsequent Directives. The toxicological properties of this product have not been thoroughly investigated.

EU CLASSIFICATION: Not applicable.

EU RISK PHRASES: Not applicable.

EMERGENCY OVERVIEW:

Product Description: This product is an odorless powder that comes in a variety of colors. **Health Hazards:** Overexposures to this product may slightly to moderately irritate eyes, skin, and other contaminated tissues. The toxicological properties of this product have not been thoroughly investigated. **Flammability Hazards:** This product must be substantially preheated for ignition to become a hazard. If involved in a fire, this product will release smoke, acrid vapors and toxic gases (e.g., carbon oxides, nitrogen oxides, copper oxides, and chromium oxides). **Reactivity Hazards:** This product is not reactive. **Environmental Hazards:** Large quantities released to the environment may have an adverse effect. **Emergency Considerations:** Emergency responders should wear appropriate protection for situation to which they respond.

SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The health hazard information provided below is pertinent to employees using this product in an occupational setting. The toxicological properties of this product have not been thoroughly investigated. The following paragraphs describe the symptoms of exposure by route of exposure.

INHALATION: Inhalation overexposures airborne dusts of this product may cause nasal irritation, coughing and sneezing.

CONTACT WITH SKIN or EYES: Skin contact may cause abrasion, redness, and discomfort. Skin contact may discolor contaminated areas. Prolonged or repeated skin overexposure may cause dermatitis (dry, red skin). Direct eye contact with the product may cause stinging, tearing, and redness. Dust can cause mechanical irritation to the eye. Because the eye tissue may be stained, the vision may be temporarily blurred.

SKIN ABSORPTION: The components of this product are not known to be absorbed through intact skin.

INGESTION: Ingestion is not a significant route of occupational overexposure and is unlikely to occur. If this product is swallowed, it may irritate the mouth, throat, esophagus and other tissues of the digestive system. Symptoms of ingestion may include nausea, vomiting, and diarrhea. Additionally, the mouth, teeth, and tissues of the throat may be discolored.



INJECTION: Accidental injection of this product, via laceration or puncture by a contaminated object may cause redness at the site of injection.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in Lay Terms. Overexposure to this product may cause the following health effects:

ACUTE: The ink may stain hair, skin, and other contaminated tissue. Overexposures to this product may slightly to moderately irritate eyes, skin, and other contaminated tissue.

CHRONIC: Prolonged or repeated skin overexposures may cause dermatitis (dry red skin).

TARGET ORGANS: ACUTE: Skin, eyes. CHRONIC: Skin.

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH HAZARD (BLUE)		1	
FLAMMABILITY HAZARD (RED)		1	
PHYSICAL HAZARD (YELLOW)		0	
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See SECTION 8		See SECTION 8
For Routine Industrial Use and Handling Applications			

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate
3 = Serious 4 = Severe * = Chronic hazard

4. FIRST-AID MEASURES

If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Take a copy of label and MSDS to physician or health professional with the contaminated individual.

SKIN EXPOSURE: If adverse skin effects occur, discontinue use and flush contaminated area. Seek medical attention if adverse effect occurs after flushing.

EYE EXPOSURE: If this product contaminates the eyes, rinse eyes under gently running water. Use sufficient force to open eyelids and then "roll" eyes while flushing. Minimum flushing is for 15 minutes. The contaminated individual must seek medical attention if any adverse effect continues after rinsing.

INHALATION: If airborne dusts of this product are inhaled, causing irritation, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention if adverse effect continues after removal to fresh air.

4. FIRST-AID MEASURES (Continued)

INGESTION: If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, DO NOT INDUCE VOMITING. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow. If victim is convulsing, maintain an open airway and obtain immediate medical attention.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing dermatitis and other skin conditions may be aggravated by overexposures to this product.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate exposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Not flammable.

AUTOIGNITION TEMPERATURE: Not established.

FLAMMABLE LIMITS (in air by volume, %):

LOWER (LEL): Not applicable.

UPPER (UEL): Not applicable.

FIRE EXTINGUISHING MATERIALS: This product is combustible. The following extinguishing materials are recommended for fires involving this product.

WATER SPRAY: OK

CARBON DIOXIDE: OK

FOAM: OK

DRY CHEMICAL: OK

HALON: NO

OTHER: NO

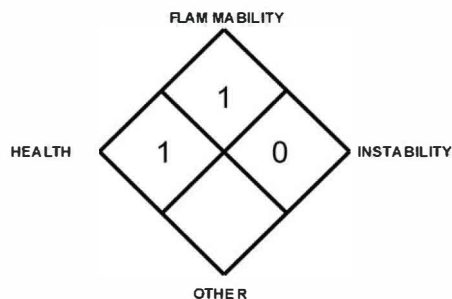
UNUSUAL FIRE AND EXPLOSION HAZARDS: This product must be substantially preheated for ignition to become a hazard. When involved in a fire, this material may decompose and produce irritating vapors and toxic gases (e.g., carbon oxides, nitrogen oxides, copper oxides, and chromium oxides). The accumulation of dusts of this product can create a serious hazard of and air/dust explosion.

EXPLOSION SENSITIVITY TO MECHANICAL IMPACT: Not sensitive.

EXPLOSION SENSITIVITY TO STATIC DISCHARGE: Although this product is not sensitive to static discharge, dusts of organic compounds, such as this product can be ignited by static discharge, especially if large amounts of dusts are allowed to accumulate. All equipment in used in the handling of this product should be electrically grounded.

SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus (SCBA) and full protective equipment. Chemical resistant clothing may be necessary. Move containers from fire area if it can be done without risk to personnel. Water spray can be used to cool fire-exposed containers. Water fog or spray can also be used by trained firefighters to disperse this product's vapors and to protect personnel. The runoff water from these products can discolor contaminated objects. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING



Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate
3 = Serious 4 = Severe

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Trained personnel using pre-planned procedures should respond to uncontrolled releases. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel. Eliminate all sources of ignition before cleanup begins. Use non-sparking tools. Minimum Personal Protective Equipment should be double-gloves (rubber over latex gloves) and rubber apron, splash goggles or safety glasses. The atmosphere must have levels of components lower than those listed in Section 8, (Exposure Limits and Personal Protection) and at least 19.5 percent oxygen before personnel can be allowed into the area without Self-Contained Breathing Apparatus (SCBA). Sweep up or vacuum spilled product carefully, avoiding the generation of airborne dusts. Decontaminate the area thoroughly. If necessary, discard all stained response equipment or rinse with soapy water before returning such equipment to service. Place all spill residue in a double plastic bag and seal. Dispose of in accordance with appropriate U.S. Federal, State, and local regulations or with regulations of the EU and its member states, Australia, New Zealand, Japan, or Canada and its Provinces.

7. HANDLING and USE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this material ON YOU or IN YOU. Do not eat, drink, smoke, or apply cosmetics while handling this product. Wash hands thoroughly after handling this product or containers of this product. Avoid breathing airborne dusts generated by this product. Use in a well-ventilated location. Follow SPECIFIC USE INSTRUCTIONS supplied with product.

7. HANDLING and USE (Continued)

STORAGE AND HANDLING PRACTICES: Employees must be trained to properly use this product. Keep away from heat, sparks, and other sources of ignition. Use non-sparking tools. Open containers slowly on a stable surface. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see Section 10, Stability and Reactivity). Storage areas should be made of fire resistant materials. Post warning and "NO SMOKING" signs in storage and use areas, as appropriate. Have appropriate extinguishing equipment in the storage area (i.e., sprinkler system, portable fire extinguishers). Keep container tightly closed when not in use. Inspect all incoming containers before storage to ensure containers are properly labeled and not damaged. Empty containers may contain residual dusts that are combustible; therefore, empty packages should be handled with care.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely, if necessary. Collect all rinsates and dispose of according to applicable U.S. Federal, State, and local procedures or with procedures of the EU and its member states, Australia, New Zealand, Japan, or Canada and its Provinces.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below. Exhaust directly to the outside, taking necessary precautions for environmental protection. If necessary, refer to Australian National Code of Practice for the Control of Workplace Hazardous Substances [NOHSC: 2007 (1994)] for further information.

EXPOSURE LIMITS/GUIDELINES:

CHEMICAL NAME	CAS #	EXPOSURE LIMITS IN AIR							
		ACGIH-TLV		OSHA-PEL		NIOSH-RELs		NIOSH	OTHER
		TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³	IDLH mg/m ³	mg/m ³
Green Umbrella™ ColorFlash		10 (Inhalable Particulate) 3 (Respirable Particulate)	NE	5 (Respirable Fraction) or 50 mppcf 15 (Total dust) or 15 mppcf	NE	NE	NE	NE	DFG MAK: TWA = 4 (Inhalable Fraction), 1.5 (Respirable Fraction)
Black Dye	Proprietary	NE	NE	NE	NE	NE	NE	NE	NE
Blue Dye	Proprietary	NE	NE	NE	NE	NE	NE	NE	NE
Brown Dye	Proprietary	NE	NE	NE	NE	NE	NE	NE	NE
Red Dye	Proprietary	NE	NE	NE	NE	NE	NE	NE	NE
Yellow Dye	Proprietary	NE	NE	NE	NE	NE	NE	NE	NE

NE = Not Established. See Section 16 for Definitions of Terms Used.

INTERNATIONAL OCCUPATIONAL EXPOSURE LIMITS: Not applicable.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132), equivalent standards of Canada (including CSA Standard Z94.4-02 and CSA Standard Z94.3-02), standards of EU member states (including EN 529:2005 for respiratory PPE, CEN/TR 15419:2006 for hand protection, and CR 13464:1999 for face/eye protection), or standards of Australia (including AS/NZS 1715:1994 for respiratory PPE, AS/NZS 4501.2:2006 for protective clothing, AS/NZS 2161.1:2000 for glove selection, and AS/NZS 1336:1997 for eye protection). Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-02, the European Standard EN 529:2005, and EU member state standards, the Australian Standard 1716-Respiratory Protective Devices and Australian Standard 1715-Selection, Use, and Maintenance of Respiratory Protective Devices, New Zealand standards, or Japanese standards. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).

EYE PROTECTION: Wear safety glasses with side shields (or goggles) and a face shield. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian CSA Standard Z94.3-02, or the European Standard CR 13464:1999, the Australian Standard 1337-Eye Protection for Industrial Applications and Australian Standard 1336-Recommended Practices for Eye Protection in the Industrial Environment, New Zealand standards, or Japanese standards.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

HAND PROTECTION: Wear Butyl rubber, Viton™, Barrier (PE/PA/PE), or Tychem™ SL gloves. Check gloves for leaks. Wash hands before putting on gloves and after removing gloves. If necessary, refer to U.S. OSHA 29 CFR 1910.138, appropriate Standards of Canada, the Australian Standard 2161-Industrial Safety Gloves and Mittens and the European Standard CEN/TR 15419:2006, New Zealand standards, or Japanese standards.

BODY/SKIN PROTECTION: Use body protection appropriate for task (e.g., coveralls or apron). If necessary, refer to appropriate Standards of Canada, the European Standard CEN/TR 15419:2006, Australian Standard 3765-Clothing for Protection Against Hazardous Chemicals, New Zealand standards, or Japanese standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136 and the Canadian CSA Standard Z195-02, *Protective Footwear*.

9. PHYSICAL and CHEMICAL PROPERTIES

BOILING POINT: Not established.

EVAPORATION RATE (Δ -BUAC = 1): Not applicable.

VAPOR PRESSURE @ 20°C (AIR = 1): Not applicable.

ODOR THRESHOLD: Odorless.

VAPOR DENSITY (AIR = 1): Not applicable.

COEFFICIENT WATER/OIL DISTRIBUTION: Not applicable.

APPEARANCE, ODOR, AND COLOR: This product is an odorless powder that comes in a variety of colors.

HOW TO DETECT THIS SUBSTANCE (WARNING PROPERTIES IN EVENT OF ACCIDENTAL RELEASE): The appearance may be a characteristic to distinguish a release of this product.

FREEZING/MELTING POINT: Not established.

SOLUBILITY IN WATER: Insoluble.

SPECIFIC GRAVITY (WATER = 1): Not established.

PH: Not applicable.

VOC CONTENT: This product contains 0% (0 g/L) VOCs.

10. STABILITY and REACTIVITY

STABILITY: This product is stable when properly stored at normal temperature and pressures (see Section 7, Handling and Storage).

DECOMPOSITION PRODUCTS: If exposed to extremely high temperatures, thermal decomposition may generate irritating fumes and toxic gases (e.g., carbon oxides, nitrogen oxides, copper oxides, and chromium oxides).

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: This product is incompatible with strong oxidizers and reducers.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid exposure to or contact with extreme temperatures, heat, sparks, flames, and incompatible chemicals.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: The toxicological properties of this product have not been thoroughly investigated. The specific toxicology data available for the components of this product are as follows:

BLACK DYE:

LD₅₀ (oral, rat) > 2000 mg/kg

BLUE DYE:

LD₅₀ (oral, rat) > 5000 mg/kg

IRRITANCY OF PRODUCT: Overexposures to this product may slightly to moderately irritate eyes, skin, and other contaminated tissues.

SENSITIZATION OF PRODUCT: This product is not known to be a human skin or respiratory sensitizer.

SUSPECTED CANCER AGENT: Components of this product are listed by agencies tracking the carcinogenic potential of chemical compounds as follows:

CHROMIUM [III] COMPOUNDS (BLACK, BROWN, RED, AND YELLOW DYES): IARC-3 (Not Classifiable as to Carcinogenicity to Humans)

The other components of this product are not found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, and therefore are neither considered to be nor suspected to be cancer causing agents by these agencies.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects this product and its components on human and animal reproductive systems.

MUTAGENICITY: The components of this product are not reported to cause human mutagenic effects.

EMBRYOTOXICITY: The components of this product are not reported to cause human embryotoxic effects.

TERATOGENICITY: The components of this product are not reported to cause teratogenic effects in humans.

REPRODUCTIVE TOXICITY: The components of this product are not reported to cause human reproductive effects.

*A **mutagen** is a chemical that causes permanent changes to genetic material (DNA) such that the changes will propagate through generation lines. An **embryo toxin** is a chemical that causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A **teratogen** is a chemical that causes damage to a developing fetus, but the damage does not propagate across generational lines. A **reproductive toxin** is any substance that interferes in any way with the reproductive process.*

ACGIH BIOLOGICAL EXPOSURE INDICES (BEIS): Currently, there are no ACGIH Biological Exposure Indices (BEIs) determined for the components of this product.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ENVIRONMENTAL STABILITY: This product will be relatively stable under ambient environmental conditions.

EFFECT OF MATERIAL ON PLANTS OR ANIMALS: No specific information is currently available on the effect of this product on plants or animals in the environment. This product may be harmful to contaminated plant and animal life, especially if released to the environment in large quantities.

EFFECT OF CHEMICAL ON AQUATIC LIFE: No information is currently available on the effect of this product on aquatic plants or animals in the environment. Release of this product to an aquatic environment may be harmful to aquatic plant and animal life in contaminated bodies of water, especially in large quantities.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations or with regulations of Canada and its Provinces, Australia, New Zealand, Japan, the EU, or EU member States. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

U.S. EPA WASTE NUMBER: Wastes of this product should be tested per the Toxicity Characteristic Leaching Procedure requirements of RCRA to determine if such wastes meet the following characteristics: D007 (Chromium), regulated level of Chromium is 5.0 mg/L.

14. TRANSPORTATION INFORMATION

THIS PRODUCT IS NOT HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME:	Not Regulated
HAZARD CLASS NUMBER and DESCRIPTION:	Not applicable
UN IDENTIFICATION NUMBER:	Not applicable
PACKING GROUP:	Not applicable
DOT LABEL(S) REQUIRED:	Not applicable
EMERGENCY RESPONSE GUIDEBOOK NUMBER (2004):	Not applicable
MARINE POLLUTANT: This product is not classified by the U.S. DOT as a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B).	

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: Components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act, as follows:

CHEMICAL NAME	SARA 302 (40 CFR 355, Appendix A)	SARA 304 (40 CFR Table 302.4)	SARA 313 (40 CFR 372.65)
Chromium Compounds (Black, Brown, Red, and Yellow Dyes)	No	No	Yes

U.S. SARA HAZARD CATEGORIES (SECTION 311/312, 40 CFR 370-21): ACUTE: Yes; CHRONIC: No; FIRE: No; REACTIVE: No; SUDDEN RELEASE: No

■ **Disclaimer:**

The information is furnished without warranty, representation, inducement, or license of any kind, except that it is accurate to the best of Green Umbrella™ (Company) knowledge. Because use conditions and applicable laws may differ from one location to another and may change with time, Recipient is responsible for determining whether the information is appropriate for recipient's use. Since company has no control over how this information may be ultimately used, all liability is expressly disclaimed and company assumes no liability.