

Union Ink Company 453 Broad Avenue Ridgefield, NJ 07657

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURING LOCATION:

HAZARDOUS MATERIAL INFORMATION SYSTEM:

Union Ink Company 453 Broad Avenue Ridgefield, NJ 07657 201-945-5766

| Health: | 1 |
|----------------------|---|
| Flammability: | 1 |
| Reactivity: | 0 |
| Personal Protection: | В |

IN CASE OF EMERGENCY CONTACT: 201-945-5766

| PRODUCT NAME: | Union EF Puff Inks | DATE REVISED: | 4/25/2012 |
|------------------|--|---------------|-----------|
| CHEMICAL FAMILY: | Polyvinyl Chloride Dispersion, Non-phthalate | SUPERSEDES: | 8/26/2010 |
| PRODUCT CODES: | PLPE-1000, 1501, 8000, 9111 | VERSION: | 3 |

PREPARED BY:

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2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Low hazard for normal industrial use.

EYE CONTACT: Low hazard for normal industrial use; however, any material that contacts the eye may cause mechanical irritation.

SKIN CONTACT: Low hazard for normal industrial use.

INGESTION: Not a likely route of exposure. Very low toxicity.

INHALATION: Not a problem at room temperature, but fumes formed at elevated temperatures can be irritating.

3. INGREDIENTS AND HAZARDS

| INGREDIENTS | CAS # | % BY WEIGHT | TLV | PEL |
|-------------|-------|-------------|-----|-----|
| | | | | |

No hazardous ingredients as defined by OSHA 29 CFR 1910.1200

While these products are not classified as hazardous under OSHA regulations, this MSDS contains valuable information important to the safe handling and proper use of these products. This MSDS should be available for employees and other users or handlers of these products

| 4. FIRST AID MEASURES | | | | |
|---|--------------------------------|-----------------------------|--|---------|
| EYES: | Flush with water for | 15 minutes. If irritation d | evelops, get medical atten | ition. |
| SKIN: | Wash with soap and | d water. | | |
| INHALATION: | Remove to fresh air | for relief. | | |
| INGESTION: | None necessary for | small quantities. | | |
| | | | | |
| | 5. FIRE FIG | HTING MEASUR | ES | |
| FLASH POINT (° F): | | >200 (COC) | | |
| OSHA FLAMMABILITY CLAS | SIFICATION: | None | | |
| EXTINGUISHING MEDIA: | Foam, CO ₂ , Dry Ch | emical, or water mist. | | |
| SPECIAL FIRE FIGHTING PR | OCEDURES: | Wear self contained brea | athing apparatus. | |
| EXPLOSION LIMITS IN AIR - | LOWER (%): | Unknown | UPPER (%): | Unknown |
| AUTO IGNITION TEMP (° F): | | Unknown | | |
| UNUSUAL FIRE AND EXPLOSION HAZARDS: Evolves flammable gas (<2.8% based on the total weight of the product) at elevated temperatures. This could cause closed containers to expand. | | | weight | |
| 6. | ACCIDENTA | L RELEASE MEAS | SURES | |
| ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Dike to contain spill. Recover free product. Collect remaining product with absorbent materials. | | | | |
| 7. HANDLING AND STORAGE | | | | |
| HANDLING: | Wash thoroughly aft | ter handling. | | |
| STORAGE: | temperatures (Abov | | n gel with long exposure to wing agent which may exp d containers. | |
| 8. EXPOSURE CONTROLS/PERSONAL PROTECTION | | | | |
| ENGINEERING CONTROLS: | Use with | adequate ventilation. | | |
| RESPIRATORY PROTECTION EQUIPMENT: Not necessary at room temperature. | | | | |
| PROTECTIVE GLOVES: | Recomm | | | |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

EYE AND FACE PROTECTION:

Safety glasses recommended.

OTHER PROTECTIVE EQUIPMENT: Usually not required.

VENTILATION:

Local exhaust as needed near processing equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

| Boiling Range/Point: Vapor Pressure: Vapor Density (AIR=1): Freezing Point: Melting Point: | Solidifies before boiling. Unknown >1 Not applicable Not applicable | | |
|--|---|--|--|
| Physical State: Color: % Volatile by Weight: VOC (g/l): Evaporation Rate (Butyl Ace Specific Gravity @ 25° C: Weight per gallon: | Thick Liquid Various Not available Not available | | |
| | 10. STABILITY AND REACTIVITY | | |
| STABILITY: | Material is stable | | |
| HAZARDOUS POLYMERIZAT | ATION: Will not occur. | | |
| HAZARDOUS THERMAL DEC | COMPOSITION/COMBUSTION PRODUCTS: CO, CO ₂ , HCl. | | |
| INCOMPATIBILITY (MATERIA | ALS TO AVOID): None | | |
| CONDITIONS TO AVOID: | Storage temperatures above 95° F. | | |
| | 11. TOXICOLOGICAL INFORMATION | | |
| CARCINOGENICITY: | This product is not listed as a carcinogen by NTP, IARC, EPA, or OSHA. This product is not listed as a reproductive or developmental toxin by EPA. | | |
| ACUTE ORAL LD50: | Not available | | |
| ACUTE INHALATION LC50: | Not available | | |
| ACUTE DERMAL LD50: | Not available | | |
| | | | |

| | 12. ECOLOGICAL INFORMATION | | | |
|--|--|--|--|--|
| ECOTOXICOLOGICAL INFO | RMATION: Unknown | | | |
| CHEMICAL FATE INFORMATION: Unknown | | | | |
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| | 13. DISPOSAL CONSIDERATIONS | | | |
| DISPOSAL METHOD: | Small amounts may be fused in a vented oven and disposed of as a solid. Disposed material is not a listed RCRA Hazardous waste. Dispose of materials in accordance with the applicable Local, State, and Federal regulations. | | | |
| | 14. TRANSPORT INFORMATION | | | |
| DOT SHIPPING NAME: DOT HAZARD CLASS: UN/NA NUMBER: DOT PACKING GROUP: AIR FREIGHT TRANSPORTA OCEAN TRANSPORTATION | 0 | | | |
| 15. REGULATORY INFORMATION | | | | |
| TSCA STATUS: | All components of this product are on the US TSCA Inventory. | | | |
| CALIFORNIA PROPOSITION to cause canc | 1 65: This product does not contain chemicals known to the state of California er or birth defects; however, routine analysis for all listed materials is not conducted. | | | |
| SARA 302 EXTREMELY HAZ | ZARDOUS SUBSTANCES LIST: None | | | |
| SARA (311,312) HAZARD CI | ASS: None | | | |
| SARA SECTION 313 TOXIC | CHEMICALS: None | | | |
| AUSTRALIAN INVENTORY | CHEMICAL SUBSTANCES: Unknown at this time. | | | |
| CANADIAN INVENTORY: | None | | | |
| EINECS REGULATIONS: | Unknown at this time | | | |
| JAPAN: | Unknown at this time | | | |
| KOREAN CHEMICAL INVEN | TORY: Unknown at this time | | | |
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16. OTHER INFORMATION

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES:

While Union Ink believes that the data contained herein are factual, and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data are not to be taken as a warranty or representation for which Union Ink assumes legal responsibility. Since the use of this information and these opinions and the use of the product are not within the control of Union Ink, it is the user's obligation to determine the conditions of safe use of the product.