



MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND OF THE COMPANY/ UNDERTAKING

Product Name : UV Cure – Light Cyan
Product ID NO. : STS.UVCF.554
Material Uses : Inkjet ink for drop-on-demand digital printing process
Manufacturer : STS Refill Technology, LLC
8300 Congress Ave
Boca Raton, FL 33487
United States of America
Phone +1-561-999-9918
Fax +1-561-999-8828
Email info@stsrefill.com
www.stsrefill.com

2. HAZARD IDENTIFICATION

This product is a blue liquid with a mild odor.

HMIS Rating : Health = 2 Fire = 1 Reactivity = 2 P = C

Hazards Overview : May cause eye and skin irritation. May cause sensitization by skin contact. Inhalation of vapors may cause mucous membrane and respiratory irritation.

All components of this product are listed with the USEPA's TSCA Chemical Substances Inventory.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

| Chemical Name | CAS# | Weight % |
|--|------------|----------|
| Ethoxylated Trimethylolpropane Triacrylate | 28961-43-5 | 5 – 15 |
| Aromatic Ketone | 71868-10-5 | 5 – 15 |
| 1,4 Butanediol Divinyl Ether | 3891-33-6 | 1 – 10 |
| *Glycol Ether | N230 | 1 – 5 |

*Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

4. FIRST AID MEASURES

Eye : Flush eyes with clean water for several minutes. Seek medical attention if irritation persists.

Inhalation : If the effected individual can be moved then seek fresh air immediately. Establish respiration. Administer oxygen if necessary to improve ventilation. Seek medical attention if irritation persists.

- Skin** : In the event of exposure, remove contaminated clothing. Wash contact area thoroughly with clean water for several minutes. Get medical attention if irritation develops or persists. Launder contaminated clothing before reuse.
- Ingestion** : Give tepid water if effected individual is conscious and alert. Call the poison control center in our area and/or notify a physician.
Note to physician: Ultraviolet (UV) curing products contain chemicals which are designed to polymerize to a solid coating when activated with UV radiation. The oral toxicity of these chemicals has been shown to be relatively low but the reactive nature of the chemicals produces a potential hazard from prolonged, direct external contact with uncured material. Extreme sensitivity and allergic reactions have occurred in some individuals in contact with this type of material. This reaction is temporary and generally localized to the area of contact. Systemic toxicity has not been found to occur.
Emergency First Aid Disclaimer
The emergency first aid treatment information given is only a general reference to aid an effected individual. Diagnosis and treatment of specific cases should be performed by a physician or by calling your poison control hotline. (See Disclaimer Section)

5. FIRE-FIGHTING MEASURES

- Extinguishing Media** : Alcohol foam, carbon dioxide, dry chemical. Water may be ineffective
- Special Fire Fighting Procedures** : Wear approved, positive pressure, self-contained breathing apparatus and full protective clothing.
- Unusual Fire and Explosion Hazards** : Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture.
WARNING: Containers can build up pressure and possibly rupture if exposed to heat.

6. ACCIDENTAL RELEASE MEASURES

- Spill** : Disposal of collected product, residues, and cleanup materials may be regulated. Observe all applicable local, state, and federal waste management regulations. Clear and secure the area of pedestrians. Observe all personal protection equipment recommendations described in this MSDS. For Large spills provide diking or other appropriate containment to prevent material from spreading. If possible recover spilled material using a pump or vacuum device, otherwise use a non-reactive absorbent. Place contaminated material(s) into a suitable salvage container for further handling and disposal. Clean any remaining material on surfaces with one or more of the following: mopping, wiping, appropriate industrial detergents or cleaners.

7. HANDLING AND STORAGE

- Handling** : NIOSH or MSHA approved respiratory equipment should be worn when this product is heated or caused to mist or produce vapors in a workers breathing zone. Avoid inhalation. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation. Remove and launder contaminated clothing before re-use. Wash thoroughly after handling and before eating, drinking, smoking or using toilet facilities.
Empty containers retain product residues and are hazardous. Follow all MSDS precautions in

handling empty containers. Do not reuse container.

Storage : Protect from freezing. Store in a cool (not above 100F), dry, well-ventilated area. This product contains chemicals that polymerize when exposed to UV light/radiation making them susceptible to hardening. Do not store unused for more than six months.

Disposal : Dispose of in accordance with all applicable, federal, state and local regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation : Provide adequate general or local exhaust ventilation to maintain vapor concentrations below the exposure limits. Use process enclosures, local exhaust ventilation, or other engineered methods to control airborne chemical concentrations.

Respiratory Protection : Under normal conditions a respirator is not required. If a noticeable mist or vapor is produced or when established airborne limits are surpassed wear NIOSH/MSHA approved equipment. Determine the appropriate type of equipment for the specific application by consulting the respirator manufacturer. Observe limitations specified by NIOSH/MSHA or the manufacturer. High airborne concentrations may necessitate the use of self-contained breathing apparatus or a supplied air respirator. Respiratory protection programs must be in compliance with 29CFR 1910.134. NOTE: A NIOSH/MSHA approved and properly fitted dust/mist mask should provide adequate protection. Any odor should be considered a nuisance and can be relieved with an organic vapor filtering device.

Skin Protection : Wear impervious gloves when handling this material. Nitrile gloves may be used in most cases. Neoprene recommended. Impervious apron, boots and other clothing are recommended if needed to prevent contact or if splashing is possible.

Eye Protection : Wear a full face shield, chemical splash goggles, or safety glasses with side shields when handling any chemical.

Other Protective Equipment : Handlers of this product should wear the following PPE; Chemical splash goggles, chemical resistant gloves, and chemical-resistant apron.

9. PHYSICAL AND CHEMICAL PROPERTIES

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| Physical State | : Low-Viscosity Liquid |
| Color | : Blue |
| Odor | : Mild Characteristic Odor |
| Boiling Point | : Not determined |
| Melting Point | : Not determined |
| Specific Gravity | : Not determined |
| Density | : 8.7 lb/gl |
| Vapor Density | : Not determined |
| Vapor Pressure | : Not determined |
| Evaporation Rate (Butyl Acetate = 1) | : < Butyl Acetate |
| % WT. V.O.C. | : 2.0 % |
| Solubility (Water) | : Insoluble |

| | |
|-------------------------|------------------|
| pH | : 7.0 – 9.0 |
| Flash Point | : ≥200 °F |
| Flammable Limits | : Not determined |

10. STABILITY AND REACTIVITY

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| Stability | : Stable under normal storage and use conditions |
| Conditions to Avoid | : Avoid sparks, heat, and open flame. Do not store near ammonia, oxidizing agents, strong acids and strong bases. |
| Hazardous Decomposition Products | : Subjecting this material to conditions that will cause decomposition may cause hazardous or toxic substances to be emitted which may include, but is not limited to: carbon monoxide, NOXs, and particulate matter |
| Hazardous Polymerization | : May occur |

11. TOXICOLOGICAL INFORMATION

Potential Health Effects :

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| Eye | : Contact in and around the eye with this material may cause severe irritation and permanent injury. |
| Skin | : This product may produce redness, inflammation and blistering if contact is made with skin for a prolonged period of time. The effect of contact may not be apparent for several hours after exposure. Repeated contact may cause hypersensitivity in some individuals. |
| Inhalation | : Vapors or mists may cause respiratory irritation with sore throat, cough, and shortness of breath. |
| Ingestion | : Do not ingest. Swallowing this material may be harmful or fatal. |
| Acute Hazards | : Acute exposure to this product may cause adverse effects. See the individual sections related to skin, eye, ingestion, and inhalation exposure for a more detailed description. |
| Chronic Hazards | : Prolonged exposure data has not been established. Assume worst case scenario as a rule. Reduce exposure by following the recommended guidelines listed in this document. |
| Carcinogenicity | : NTP Carcinogen: No; IARC Monographs: No; OSHA Regulated: No Based on available information, this material cannot be classified with regard to carcinogenicity. It is not listed as a carcinogen by any of the above organizations. |
| Medical Conditions Aggravated by Exposure | : Data has not been established to determine that this product aggravates preexisting medical conditions. Use reasonable judgment if you have any preexisting medical conditions that could potentially put you at an elevated risk level. |

12. ECOLOGICAL INFORMATION

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| Ecotoxicity | : No data available |
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13. DISPOSAL CONSIDERATIONS

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| Waste Disposal | : Dispose of in accordance with all local, regional and national regulations. |
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14. TRANSPORTATION INFORMATION

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| DOT Proper Shipping Name | : Not regulated |
| DOT Technical Name | : None |
| DOT Hazard Class | : Not regulated |
| UN Number | : None |
| DOT Labels Required (49CFR172.101) | : None |
| Hazardous Substance (49CFR172.101) | : None |
| Reportable Quantity | : N/A |

15. OTHER INFORMATION

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| Date of Issue | : December 18, 2013 |
| Version | : 1.00 English |

Notice to the Reader:

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. While the information set forth herein is believed to be accurate as of the date hereof, the Company makes no warranty or guarantee, express or implied, and disclaims all liability arising out of the use of this information.