



## MATERIAL SAFETY DATA SHEET

### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer's Name:** Lancer Group International  
311 Saulteaux Crescent  
Winnipeg, Manitoba,  
Canada R3J 3C7

**Emergency Telephone Number:** (204) 889-7422

**Trade Name:** Excalibur Direct Print Plastisol Inks

**Codes:** 100 Horizon Series, 400 Color Series, 400 FF Series, 400 LB White, 504 Base, 500 Color Series, 505 Process Base, 5050 White, 525 Competition White, 550 Base, 550 Color Series, 551 Series, 565 White, 567 FF High Opacity White, 579 White, 581 White, 585 White, 595 White, 600 Process Colors, 600 Super Strength Series Process Colors, 700 Series, 750 Stone Print Series, 825 Foam Grip, 834 High Density Base, 835 Super Clear, 837 Coning Base, 1550 SportPro Athletic Series, 1551 ColorPro Athletic Series, 1800 Spot Process Color Series, Jelly Print Series, Knife Coat Series, Spray Plas Base, Retroflec, Quicksilver, Stone Age Series and High Density, and Sponge Base Inks

**Chemical Family:** Plastisol

**Product Use:** Screen printing ink

**WHMIS Classification:** Not controlled

**24 Hour Emergency Number:** (613) 996-6666 CANUTEC  
(Use in case of a dangerous goods emergency.)

### SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	Percentage	TLV (ppm)	CAS#

**Composition comments:** These products do not contain any known currently listed hazardous materials nor do they contain any carcinogenic or suspected carcinogenic agents.

### SECTION 3. HAZARDS IDENTIFICATION

**Primary Routes of Exposure:** Potential routes of overexposure to these products are skin contact and inhalation of fumes during heat processing.

**Effects of Overexposure:** Fumes emitted during fusion may irritate eyes, skin or respiratory tract.

**Chronic Effects:** Skin sensitization and allergenic reactions may occur in certain individuals in slight cases.

**Synergistic Products:** None known

## SECTION 4. FIRST AID MEASURES

**Eye Contact:** Immediately flush eyes with water for 15 minutes.

**Skin Contact:** Remove excess material from skin and wash with soap and water.

**Inhalation:** Remove to fresh air immediately.

**Ingestion:** Get immediate medical attention and advice.

## SECTION 5. FIRE FIGHTING MEASURES

### Flammability Properties

**Flash Point (Closed Cup), °C:** 227

**Hazardous Combustion Products:** Oxide of Carbon, Hydrochloric Acid

**Explosion Limits:** Not applicable

**Explosion Data:** Not applicable

**Extinguishing Media:** CO<sub>2</sub>, Dry Chemical, Foam

**Special Fire Fighting Procedures:** Avoid breathing combustion product or use self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Container may explode when subjected to extreme conditions and temperatures.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Procedure if Material is Spilled or Released:** Scoop material into a clean, properly labeled container for disposal and absorb remainder with inert material.

## SECTION 7. HANDLING AND STORAGE

**Handling:** Handle and open containers with care. Avoid eye contact. Avoid excessive or repeated skin contact. Keep the containers closed when not in use.

**Storage:** Keep the container tightly closed in a cool, dry, well-ventilated area, away from oxidizing and combustible materials.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiration Protection:** Not required with normal adequate ventilation

**Ventilation:** Exhaust system sufficient to remove vapours released during fusion process

**Engineering Controls:** Not necessary

### Personal Protective Equipment (PPE)

**Skin Protection:** Nitrile gloves if continual contact is likely

**Footwear:** Sneakers

**Clothing:** Nitrile smock if available

**Respiratory Protection:** Not required with normal adequate ventilation

**Personal Hygiene:** Avoid breathing fumes during fusion process. Wash hands before eating. Wash contaminated clothing before reuse. Normal washing will be sufficient.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Cream paste with slight odour

**Boiling Range, °C:** 260

**Vapor Pressure (mm Hg @ 20°C):** < 0.001 @ 38 °C

**Vapor Density (Air = 1):** Heavier than air

**Specific Gravity (Water = 1):** 1 – 1.5

**Solubility in water:** Insoluble

**Percent Volatile by volume:** Not applicable

**pH:** 7

## SECTION 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable

**Incompatibility (materials to avoid):** Oxidizing material can cause reaction

**Conditions of Reactivity:** Prolonged exposure to temperatures @ 300° C, Product stable at ambient temperature

**Hazardous Decomposition:** Not established

## SECTION 11. TOXICOLOGICAL INFORMATION

There is no known published data available for this product.

## SECTION 12. ECOLOGICAL INFORMATION

There is no known published data available for this product.

## SECTION 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of in accordance with all Local, Provincial and Federal Regulations.

## SECTION 14. TRANSPORT INFORMATION

**Canadian TDG Shipping Description:** Not regulated

**US DOT Classification:** Not regulated

## SECTION 15. REGULATORY INFORMATION

**U.S. TSCA Inventory Status:** All components of these products are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

**Canadian DSL Inventory Status:** All components of these products are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

**Note:** Not available

## SECTION 16. OTHER INFORMATION

**DISCLAIMER:** All information presented herein is given in good faith and is based on sources and tests are considered to be reliable but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product as well as to determine the suitability of this product for a specific purpose. We can make no warranty as to the results to be obtained in using the product. Therefore the user must assume all risk.

**MSDS Prepared by:** Discovery/Lancer Group

**Phone Number:** (204) 885-7792

**Issue Date:** August 10, 2007

**Revision:** 2

**Replaces sheet dated:** October 3, 2006



## MATERIAL SAFETY DATA SHEET

### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer's Name:** Lancer Group International  
311 Saulteaux Crescent  
Winnipeg, Manitoba,  
Canada R3J 3C7

**Emergency Telephone Number:** (204) 889-7422

**Trade Name:** Puff Additive

**Codes:** PF-97

**Chemical Family:** Polystyrene beads dispersion

**Product Use:** Additive for screen printing ink

**WHMIS Classification:** Not controlled

**24 Hour Emergency Number:** (613) 996-6666 CANUTEC  
(Use in case of a dangerous goods emergency.)

### SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	Percentage	TLV (ppm)	CAS#

**Composition comments:** These products do not contain any known currently listed hazardous materials nor do they contain any carcinogenic or suspected carcinogenic agents.

### SECTION 3. HAZARDS IDENTIFICATION

**Effects of overexposure:** Fumes emitted during fusion may irritate eyes, skin or respiratory tract during fusion may irritate eyes, skin or respiratory tract.

**Chronic Effects:** Skin sensitization and allergenic reactions may occur in certain individuals in slight cases.

**Synergistic products:** None known

### SECTION 4. FIRST AID MEASURES

**Eye Contact:** Immediately flush eyes with water for 15 minutes.

**Skin Contact:** Remove excess material from skin and wash with soap and water.

**Inhalation:** Remove to fresh air immediately.

**Ingestion:** Get immediate medical attention and advice.

## SECTION 5. FIRE FIGHTING MEASURES

### Flammability Properties

**Flash Point (Closed Cup), °C:** 227

**Hazardous Combustion Products:** Oxide of Carbon, Hydrochloric Acid

**Explosion Limits:** Not applicable

**Explosion Data:** Not applicable

**Extinguishing Media:** CO<sub>2</sub>, Dry Chemical, Foam

**Special Fire Fighting Procedures:** Avoid breathing combustion product or use self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Container may explode when subjected to extreme conditions and temperatures.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Procedure if Material is Spilled or Released:** Scoop material into a clean, properly labeled container for disposal and absorb remainder with inert material.

## SECTION 7. HANDLING AND STORAGE

**Handling:** Handle and open containers with care. Avoid eye contact. Avoid excessive or repeated skin contact. Keep the containers closed when not in use.

**Storage:** Keep the container tightly closed in a cool, dry, well-ventilated area, away from oxidizing and combustible materials.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ventilation:** Exhaust system sufficient to remove vapours released during fusion process

**Engineering Controls:** Not necessary

### Personal Protective Equipment (PPE)

**Skin Protection:** Nitrile gloves if continual contact is likely

**Footwear:** Sneakers

**Clothing:** Nitrile smock if available

**Respiratory Protection:** Not required with normal adequate ventilation

**Personal Hygiene:** Avoid breathing fumes during fusion process. Wash hands before eating. Wash contaminated clothing before reuse. Normal washing will be sufficient.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Cream paste with slight odour

**Boiling Range, °C:** 260

**Vapor Pressure (mm Hg @ 20°C):** < 0.001 @ 38 °C

**Vapor Density (Air = 1):** Heavier than air

**Specific Gravity (Water = 1):** 0.96

**Solubility in water:** Insoluble

**Percent Volatile by volume:** Not applicable

**pH:** 7

## SECTION 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable

**Conditions of Reactivity:** No hazardous reactions will occur

**Hazardous Decomposition:** Not established

## SECTION 11. TOXICOLOGICAL INFORMATION

There is no known published data available for this product.

## SECTION 12. ECOLOGICAL INFORMATION

There is no known published data available for this product.

## SECTION 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of in accordance with all Local, Provincial and Federal Regulations.

## SECTION 14. TRANSPORT INFORMATION

**Canadian TDG Shipping Description:** UN 2211 Polymeric Beads Expandable, Class 9.

## SECTION 15. REGULATORY INFORMATION

**U.S. TSCA Inventory Status:** All components of these products are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

**Canadian DSL Inventory Status:** All components of these products are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

**Note:** Not available

## SECTION 16. OTHER INFORMATION

**DISCLAIMER:** All information presented herein is given in good faith and is based on sources and tests are considered to be reliable but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product as well as to determine the suitability of this product for a specific purpose. We can make no warranty as to the results to be obtained in using the product. Therefore the user must assume all risk.

**MSDS Prepared by:** Discovery/Lancer Group

**Phone Number:** (204) 885-7792

**Issue Date:** August 21, 2007

**Revision:** 2

**Replaces sheet dated:** July 3, 2003



## MATERIAL SAFETY DATA SHEET

### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer's Name:** Lancer Group International  
311 Saulteaux Crescent  
Winnipeg, Manitoba,  
Canada R3J 3C7

**Emergency Telephone:** (204) 889-7422

**Trade Name:** Excalibur Plastisol Ink Reducer

**Codes:** 501/1501 Curable Reducer

**Chemical Family:** Plastisol

**Product Use:** Screen printing ink

**CAS #:** See Section II

**WHMIS Classification:** Not controlled

**24 Hour Emergency Number:** (613) 996-6666 CANUTEC

Use in case of a dangerous goods emergency

### SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENTS:	%	TLV (ppm)	CAS
This product is not			
WHMIS controlled			

**Composition comments:** These products do not contain any known currently listed hazardous materials nor do they contain any carcinogenic or suspected carcinogenic agent.

### SECTION 3. HAZARDS IDENTIFICATION

**Effects of Overexposure:** Fumes emitted during fusion may irritate eyes, skin or respiratory tract

**Chronic Overexposure:** Skin sensitization and allergic reactions may occur in certain individuals in slight cases

**Sensitization to Materials:** Skin sensitization and allergic reactions may occur in certain individuals in slight cases

**Synergistic Products:** None known

### SECTION 4. FIRST AID MEASURES

**Eye Contact:** Immediately flush with water for 15 minutes

**Skin Contact:** Remove excess material from skin and wash with soap and water

**Inhalation:** Remove to fresh air immediately

**Ingestion:** Get immediate medical attention and advice

### SECTION 5. FIREFIGHTING MEASURES



**Flammability Properties:**

**Flash Point (Closed Cup) °C:** 227

**Hazardous Combustion Products:** Oxide of Carbon, Hydrochloric Acid

**Explosion Limits:** Not applicable

**Explosion Data:** Not applicable

**Extinguishing Media:** CO<sub>2</sub>, Dry Chemical Foam

**Special Fire Fighting Procedures:** Avoid breathing combustion product or use self-contained breathing apparatus

**Unusual Fire and Explosion Hazards:** Container may explode when subjected to extreme conditions and temperatures

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Steps to be taken in case material is spilled or released:** Scoop material into drum or container suitable, absorb remainder with inert material

## SECTION 7. HANDLING AND STORAGE

Store in a cool place away from oxidizing and combustible materials

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiration Protection:** Not required with normal adequate ventilation

**Ventilation:** Exhaust system sufficient to remove vapours released during fusion process

**Engineering Controls:** Not necessary

**Personal Protective Equipment (PPE)**

**Skin Protection:** Nitrile gloves if continual contact is likely

**Footwear:** Sneakers

**Clothing:** Nitrile smock if available

**Respiratory Protection:** Not required with normal adequate ventilation

**Personal Hygiene:** Avoid breathing fumes during fusion process. Wash hands before eating. Wash Contaminated clothing before reuse. Normal washing will be sufficient.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Cream paste with slight odour

**Boiling Range °C:** 260

**Vapor Pressure (mm Hg @ 20°C):** <.001 kpa @ 38° C

**Vapor Density (Air = 1):** Heavier than air

**Specific Gravity (Water = 1):** 1 – 1.5

**Solubility in water:** Insoluble

**Percent Volatile by volume:** Not applicable

**pH:** 7

## SECTION 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable

**Incompatibility:** (materials to avoid) Oxidizing material can cause reaction

**Conditions of Reactivity:** Prolonged exposure to temperatures @ 300° C, Product stable at ambient temperature

**Hazardous Decomposition:** Not established

## SECTION 11. TOXICOLOGICAL INFORMATION

## SECTION 12. ECOLOGICAL INFORMATION

There is no known published data available for this product.

There is no known published data available for this product.

## SECTION 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of in accordance with all Local, Provincial and Federal Regulations

## SECTION 14. TRANSPORT INFORMATION

**Canadian TDG Shipping Description:** Not regulated.

**US DOT Classification:** Not regulated.

## SECTION 15. REGULATORY INFORMATION

**U.S. TSCA Inventory Status:** All components of these products are either on the Toxic Substances Control Act (TSCA) or exempt.

**Canadian DSL Inventory Status:** All components of these products are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

## SECTION 16. OTHER INFORMATION

**Disclaimer:** All information presented herein is given in good faith and is based on sources and tests are considered to be reliable but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product as well as to determine the suitability of this product for a specific purpose. We can make no warranty as to the results to be obtained in using the product. Therefore the user must assume all risk.

**MSDS Prepared By:** DISCOVERY/LANCER GROUP

**Phone Number:** (204) 885-7792

**Revision Date:** January 23, 2008

**Revision:** 2

**Replaces Sheet Dated:** January 3, 2008



## MATERIAL SAFETY DATA SHEET

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER'S NAME

Lancer Group International  
311 Saulteaux Crescent  
Winnipeg, Manitoba,  
Canada R3J 3C7

EMERGENCY TELEPHONE:

(204) 889-7422

**TRADE NAME: VISCOSITY REDUCER**

CODES: 502, 902

CHEMICAL FAMILY: Ester

PRODUCT USE: Viscosity Reducer

CAS #: 68515-48-0 and 28553-12-0

WHMIS Classification: Not controlled

### SECTION II: HAZARDOUS INGREDIENTS

INGREDIENTS:	%	TLV (ppm)	CAS

### SECTION III: PHYSICAL DATA

Appearance and Odor: Clear oily liquid, mild odour

Boiling Range °C: 252°C

Melting/Freezing Point °C (Water = 0°C): -48°C Approximately

Vapor Pressure (mm Hg): < 0.001 Kpa @ 38°C

Vapor Density (Air = 1): >10

Specific Gravity (Water = 1) @ 20°C: 0.97

Solubility in water: Insoluble

Percent Volatile by volume: Not applicable

pH: Neutral

Evaporation Rate: (Butyl Acetate=1): <0.05

Co-efficient of water / oil distribution: <0.01%

Odour Threshold (ppm): Not applicable

## **SECTION IV: FIRE AND EXPLOSION DATA**

### **FLAMMABILITY PROPERTIES:**

- Flammability: Flammable
- Flammability Conditions:  
Keep away from intense heat, open flame or in the presence of an ignition source
- Flash Point (Closed Cup) °C: 213 °C
- Auto ignition Temperature: >260 °C
- Hazardous Combustion Products: Oxides of Carbon (CO, CO<sub>2</sub>)
- Explosion Limits: NA
- Explosion Data: NA

**EXTINGUISHING MEDIA:** Carbon Dioxide, Dry chemical, Foam water spray

### **SPECIAL FIRE FIGHTING PROCEDURES:**

Firefighters should wear the usual protective gear. Use self-contained breathing apparatus.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Oxides of Carbon.

## **SECTION V: HEALTH HAZARD DATA**

**EFFECTS OF OVEREXPOSURE:** Irritant

**CHRONIC OVEREXPOSURE:** Not available

**TOXICITY DATA:** None Known

**SENSITIZATION TO MATERIALS:** None Known

**SYNERGISTIC PRODUCTS:** Not available

### **EMERGENCY AND FIRST AID MEASURE:**

- Eye Contact: Immediately flush eyes with running water for a minimum of 20 minutes holding eyelids open during flushing. Obtain medical attention immediately.
- Skin Contact: Wash with water and mild soap for at least 15 minutes
- Inhalation: Remove to fresh air. Administer oxygen to aid breathing. Seek medical attention.
- Ingestion: Give large quantities of water to drink. Seek medical attention.
- Additional Information: Promptly remove and wash contaminated clothing prior to reuse.

## **SECTION VI: REACTIVITY DATA**

**CHEMICAL STABILITY:** Product is stable in non-emergency conditions.

INCOMPATIBILITY: Strong Oxidizers

CONDITIONS OF REACTIVITY: Excessive heat, open flame or ignition source and contact with incompatible substances.

HAZARDOUS DECOMPOSITION: Oxides of Carbon (CO, CO<sub>2</sub>)

## **SECTION VII. SPILL OR LEAK PROCEDURES**

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED:

Absorb residual material with sand or other absorbent material. Place in a closed container. Recover using a pump. Ventilate area. Contain spilled material. Wash floor area with hot water solution of oaklite.

WASTE DISPOSAL METHOD: In accordance with Municipal, Provincial and Federal Regulations.

## **SECTION VIII: SPECIAL PROTECTION INFORMATION**

VENTILATION: Local exhaust at points of emission. Mechanical ventilation is satisfactory.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Eye Protection: Wear splash-proof chemical goggles
- Skin Protection: Gloves: Wear impervious gloves
- Footwear: Safety boots as per local regulators
- Clothing: Wear a rubber apron
- Respiratory Protection: Use NIOSH approved respirator
- Other: Eye wash facility should be in close proximity. Wash hands prior to smoking and consuming food.

## **SECTION IX: HANDLING, STORAGE AND SHIPPING INFORMATION**

HANDLING PROCEDURES AND EQUIPMENT:

Maintain a good personal hygiene. Avoid all skin contact. Handle and open container with care. This product must be manipulated by qualified personnel. Keep away from heat, sparks, and open flame. Avoid breathing vapours. Use adequate ventilation. Wash thoroughly after using, particularly before eating or smoking.

STORAGE NEEDS: Store away from oxidizing materials and all sources of ignition. Store in a cool and well ventilated area. Store in a dry place. Keep in a tightly sealed container.

SHIPPING:

- Canadian TDG Shipping Description: Not regulated.
- US DOT Classification: Not regulated.

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MSDS PREPARED BY: DISCOVERY/LANCER GROUP

PHONE NUMBER: (204) 885-7792

REVISED DATE: January 8, 2008



## Safety Data Sheet (SDS)

Trade Name: Excalibur Direct Print Phthalate-Free Plastisol Inks

Revision Date: February 18, 2015

### SECTION 1

#### Identification of the Substance/Mixture and of the Company/Undertaking

##### 1.1 Product Identifier

**Product Name:** Excalibur Direct Print Phthalate Free Plastisol Ink

**Product Codes:** 100 Horizon PF Series, 400 PF Color Series, 400 PF FF Series, 451 PF Series, 451 PF FF Series, 504 PF Base, 500 PF Color Series, 505 PF Process Base, 5050 Plus PF White, 550 PF Base, 550 PF Color Series, 551 PF Series, 525 Competition White PF, 527 Keystone White PF, 533 PF Series, 565 PF White, 567 PF FF High Opacity White, 579 PF White, 581 PF White, 585 PF White, 595 PF White, 596 Miracle White, 596 Miracle Gold, 600 PF Process Colors, 600 PF Super Series Process Colors, 700 Series PF, 750 PF Stone Print Series, 825 PF Foam Grip, 833 PF Super Clear High Density Ink, 834 PF High Density Base, 835 PF Base, 835 High Density Color Series, 837 PF Coning Base, 838 PF Super Clear High Density Base, 1533 PF Series, 1550 PF SportPro Athletic Series, 1551 PF ColorPro Athletic Series, 1596 Sport Pro Defender, 1800 PF Spot Process Color Series, Jelly Print PF Series, Knife Coat PF Series, Spray Plas PF Base, Retroflec PF, Quicksilver PF, Stone Age PF Series and High Density PF, Sponge Base PF Inks, 801 Excalibur Foil Proof Ink, Suede Ink, Target White, TKO

##### 1.2 Uses/Application

Screen printing ink

##### 1.3 Company (Name, address and phone numbers)

**Lancer Group International**

311 Saulteaux Crescent

Winnipeg, Manitoba,

Canada R3J 3C7

+1 (204) 889-7422

##### 1.4 24 Hour Emergency Number: +1(613) 996-6666 CANUTEC

### SECTION 2

#### Hazards Identification

##### 2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EU) 1272/2008 : Not classified

Not a hazardous substance or mixture according to Regulation (EC) 1272/2008

2.1.2 Classification according to EU Directives 67/548/EC or 1999/45EC : Not classified

This substance is not classified as dangerous according to directive 67/548/EEC

2.1.3 WHMIS Classification: : Not WHMIS controlled

2.1.4 GHS Classification: Not a dangerous substance or mixture

##### 2.2 Label Elements

2.2.1 Labeling according to Regulation (EU) 1272/2008 : Not applicable

2.2.2 Labeling according to Directives (67/548;1999/45 : Not relevant

##### 2.3 Other hazards

Effects of overexposure: Fumes emitted during fusion may irritate the eyes, skin or respiratory tract

Chronic Effects: Skin sensitization and allergenic reactions may occur in certain individuals in slight cases.



## Safety Data Sheet (SDS)

Trade Name: Excalibur Direct Print Phthalate-Free Plastisol Inks

Revision Date: February 18, 2015

### SECTION 3

#### Composition/Information on Ingredients

##### 3.1 Substances

There are no hazardous ingredients as defined under OSHA Regulations 29 CFR 1910.1200

No substances fulfil the criteria set forth in Annex II section A of the REACH regulation 1907/2006

##### 3.2 Mixtures

###### Composition

Ingredients	Percentage	CAS#	Classification according to directive 76/548/EEC	Classification according to directive 1272/2008
Plasticizer Phthalate Free	30-40%	166412-78-8	Not classified	Not classified
Calcium carbonate	15-25%	7789-78-8	Not classified	Not classified
Fume silica	1-5%	112945-52-5	Not classified	Not classified
PVC resin	30-40%	9002-86-2	Not classified	Not classified
Titanium Dioxide	5-40%	13463-67-7	Not classified	Not classified
Organic pigment	10-20%	Mixture	Not classified	Not classified

**Composition comments:** These products do not contain any known currently listed hazardous materials nor do they contain any carcinogenic or suspected carcinogenic agents.

### SECTION 4

#### First aid measures

As a general rule, in case of doubt or if symptoms persist, always call a doctor. NEVER induce swallowing in an unconscious person

##### 4.1 Description of First Aid Measures

4.1.1 Treatment for Eye Contact: Immediately flush eyes with water for 15 minutes holding the eyelids open. If there is any redness, pain or visual impairment consult an ophthalmologist.

4.1.2 Treatment for Skin Contact: Remove contaminated clothing and wash the skin thoroughly with soap and water. In the event of allergic reaction, seek medical attention

4.1.3 Treatment for Inhalation: In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest. If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

4.1.4 Treatment for Ingestion: Do not give the patient anything orally. In the event of swallowing, if quantity is small,





## Safety Data Sheet (SDS)

Trade Name: Excalibur Direct Print Phthalate-Free Plastisol Inks

Revision Date: February 18, 2015

- rinse the mouth with water and consult a doctor. Do not induce vomiting.
- 4.2 Most important symptoms and effects, both acute and delayed  
No data available
- 4.3 Indication of any immediate medical attention and special treatment needed  
No data available

### SECTION 5 Fire-fighting Measures

- 5.1 Extinguishing Media  
Suitable extinguishing media: In the event of fire use carbon dioxide, dry chemical agents, foam.  
Unsuitable extinguishing media: In the event of fire do not use water jet.
- 5.2 Special hazards arising from the substance or mixture: A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health. Do not breathe smoke. In the event of fire, carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>) may be formed.
- 5.3 Advice for firefighters: Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with self-contained breathing apparatus(SCBA).

### SECTION 6 Accidental Release Measures

- 6.1 Personal Precautions, protective equipment and emergency procedures
- 6.1.1 For non-emergency personnel: Avoid inhaling vapors. Avoid any contact with skin and eyes. If large quantity has been spilled, evacuate all personnel and allow intervention by trained operators with safety apparatus
- 6.1.2 For emergency responders: Only qualified personnel equipped with suitable protective equipment may intervene.
- 6.2 Environmental Precautions: Contain and control the leaks or spills with non-combustible absorbent material such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal. Material should not be drained into the sewers.
- 6.3 Methods and material for containment and cleaning-up:  
Scoop material into a clean, properly labeled container for disposal and absorb remainder with inert material.
- 6.4 Reference to other sections: refer to section 8 section 13

### SECTION 7 Handling and Storage

- 7.1 Precautions for safe handling:
- 7.1.1 Handling:  
Handle and open containers with care. Avoid eye contact. Avoid excessive or repeated skin contact. Keep the containers closed when not in use.



## Safety Data Sheet (SDS)

Trade Name: Excalibur Direct Print Phthalate-Free Plastisol Inks

Revision Date: February 18, 2015

### 7.1.2 Hygiene measures:

- Handle in accordance with good industrial hygiene and safety practice.
- Wash hands before taking meal breaks and immediately after handling the product.
- Do not eat, drink or smoke while using the product.
- Remove and wash contaminated clothing before re-use.

### 7.2 Conditions for safe storage, including any incompatibilities:

- Storage Condition :Keep the container tightly closed in a cool, dry, well-ventilated area, away from oxidizing and combustible materials.
- Packaging material: store in original container

### 7.3 Specific end use(s): refer to section 1.2

## SECTION 8

### Exposure controls/personal protection

#### 8.1 Control parameters:

Exposure limits: Not applicable

#### 8.2 Exposure controls:

8.2.1 Engineering Controls: Not necessary

8.2.2 Personal protective equipment:

Skin Protection: Nitrile gloves if continual contact is likely

Personal Hygiene: Avoid breathing fumes during fusion process. Wash hands before eating.

Wash contaminated clothing before reuse. Normal washing will be sufficient.

Respiratory Protection: Wear chemical safety goggles and face shield. Have an eye-wash stations available in the work area.

Ventilation: Exhaust system sufficient to remove vapours released during fusion process.

8.2.3 Environmental Exposure Controls: Do not drain into sanitary sewer system. Comply with applicable community Environmental protection laws.

## SECTION 9

### Physical and Chemical Properties

#### 9.1 General information on basic physical and chemical properties:

Appearance	: Cream paste
Odor	: slight odour
pH	: 7
Melting point/freezing point	: Not determined
Evaporation rate	: Not Available
Flammability	: Not Available
Explosive limits	: Not Available



## Safety Data Sheet (SDS)

Trade Name: Excalibur Direct Print Phthalate-Free Plastisol Inks

Revision Date: February 18, 2015

Relative density	: Not Available
Partition coefficient: n-octanol/water	; Not Available
Auto ignition temperature	: Not Available
Decomposition temperature	: Not Available
Explosive properties	: Not Available
Oxidizing properties	: Not Available
Viscosity	:30000 – 300000 cps
Boiling Range, °C	: 260
Flash Point (Closed Cup), °C	: 227
Vapor Pressure (mm Hg @ 20°C)	: < 0.001 @ 38 °C
Vapor Density (Air = 1)	: Heavier than air
Specific Gravity (Water = 1)	: 1 – 1.5
Solubility in water	: Insoluble

### 9.2 Other information:

Percent Volatile by volume: Not applicable; Does not contain any volatile organic compounds

Hazardous Air pollutant: Does not contain any HAP's in accordance with US Environmental requirement list

## SECTION 10 Stability and Reactivity

10.1 Reactivity: Product stable at ambient temperature

Conditions of Reactivity: Prolonged exposure to temperatures @ 300° C

10.2 Stability

Chemical Stability: Under storage at normal ambient temperatures(-40 °C to +40 °C, the product is stable

10.3 Possibility of hazardous reactions: Not established

10.4 Conditions to avoid: Heat

10.5 Incompatible material: Oxidizing agents

10.6 Hazardous Decomposition Products: : Carbon monoxide(CO), carbon dioxide (CO<sub>2</sub>)

## SECTION 11 Toxicological Information

11.1 Information on toxicological effects

There is no known published data available for this product.

## SECTION 12 Ecological Information

12.1 Toxicity

There is no known published data available for this product.



## Safety Data Sheet (SDS)

Trade Name: Excalibur Direct Print Phthalate-Free Plastisol Inks

Revision Date: February 18, 2015

### SECTION 13 Disposal Considerations

#### 13.1 Waste Treatment Methods

##### 13.1.1 Product/ Packaging disposal

Waste Category based on European Council directive on Waste :  
080313 (Appendix A –Consolidated European Waste Catalogue)

**Classification:** Non-hazardous

13.1.2 Waste Disposal Method: Dispose of in accordance with appropriate U.S. Federal, State and local regulations, regulations of Canada and regulations of EU member states.

### SECTION 14 Transport Information

Transportation by road/Railway(ADR/RID): Not classified as dangerous goods

Transportation by air(ICA/O/IATA): Not classified as dangerous goods

Transportation by sea(IMDG): Not classified as dangerous goods

Canadian TDG Shipping Description: Not regulated

US DOT Classification: Not regulated

### SECTION 15 Regulatory Information

#### 15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture

The product is not on the list of controlled substances of the following:

Regulation(EC) No.2037/2000

Regulation(EC) No. 850/2004

Regulation(EC) No. 1999/13

U.S. TSCA Inventory Status: All components of these products are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

US EPA CERCLA Hazardous Substances (40 CFR 302): Not applicable

California Proposition 65: Not applicable

SARA Title III Section 302 Extremely Hazardous Substances: Not applicable

SARA Title III Section 313 Toxic Chemicals: Not applicable



## Safety Data Sheet (SDS)

Trade Name: Excalibur Direct Print Phthalate-Free Plastisol Inks

Revision Date: February 18, 2015

Canadian DSL Inventory Status: All components of these products are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

National Pollutant Release Inventory (NPRI): Not applicable

Canadian Classification HMIS Classification: Not Classified

Hazardous Material Identification System:

Health:	1
Flammability:	0
Reactivity:	0
Personal Protection:	A

### SECTION 16

#### Other Information

**DISCLAIMER:** All information presented herein is given in good faith and is based on sources and tests are considered to be reliable but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product as well as to determine the suitability of this product for a specific purpose. We can make no warranty as to the results to be obtained in using the product. Therefore the user must assume all risk.

**MSDS Prepared by:** Discovery/Lancer Group

**Phone Number:** (204) 885-7792

**Issue Date:** June 18, 2013

**Revision:** 10



## MATERIAL SAFETY DATA SHEET

### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer's Name:** Lancer Group International  
311 Saulteaux Crescent  
Winnipeg, Manitoba,  
Canada R3J 3C7

**Emergency Telephone Number:** (204) 889-7422

**Trade Name:** Excalibur Plastisol Printable Adhesives

**Codes:** 841 Printable Adhesive, 842 Printable Adhesive, 843 Caviar Beads Adhesive, 845 Hi-Bond Adhesive, 846 Printable Adhesive, 847 Printable Adhesive and 888 Stretch Back Adhesive

**Chemical Family:** Plastisol

**Product Use:** Screen printing ink

**WHMIS Classification:** Not controlled

**24 Hour Emergency Number:** (613) 996-6666 CANUTEC  
(Use in case of a dangerous goods emergency.)

### SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	Percentage	TLV (ppm)	CAS#

**Composition comments:** These products do not contain any known currently listed hazardous materials nor do they contain any carcinogenic or suspected carcinogenic agents.

### SECTION 3. HAZARDS IDENTIFICATION

**Primary Routes of Exposure:** Potential routes of overexposure to these products are skin contact and inhalation of fumes during heat processing.

**Effects of Overexposure:** Fumes emitted during fusion may irritate eyes, skin or respiratory tract.

**Chronic Effects:** Skin sensitization and allergenic reactions may occur in certain individuals in slight cases.

**Synergistic Products:** None known

### SECTION 4. FIRST AID MEASURES

**Eye Contact:** Immediately flush eyes with water for 15 minutes.

**Skin Contact:** Remove excess material from skin and wash with soap and water.

**Inhalation:** Remove to fresh air immediately.

**Ingestion:** Get immediate medical attention and advice.

## SECTION 5. FIRE FIGHTING MEASURES

### **Flammability Properties**

**Flash Point (Closed Cup), °C:** 227

**Hazardous Combustion Products:** Oxide of Carbon, Hydrochloric Acid

**Explosion Limits:** Not applicable

**Explosion Data:** Not applicable

**Extinguishing Media:** CO<sub>2</sub>, Dry Chemical, Foam

**Special Fire Fighting Procedures:** Avoid breathing combustion product or use self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Container may explode when subjected to extreme conditions and temperatures.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Procedure if Material is Spilled or Released:** Scoop material into a clean, properly labeled container for disposal and absorb remainder with inert material.

## SECTION 7. HANDLING AND STORAGE

**Handling:** Handle and open containers with care. Avoid eye contact. Avoid excessive or repeated skin contact. Keep the containers closed when not in use.

**Storage:** Keep the container tightly closed in a cool, dry, well-ventilated area, away from oxidizing and combustible materials.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiration Protection:** Not required with normal adequate ventilation

**Ventilation:** Exhaust system sufficient to remove vapours released during fusion process

**Engineering Controls:** Not necessary

### **Personal Protective Equipment (PPE)**

**Skin Protection:** Nitrile gloves if continual contact is likely

**Footwear:** Sneakers

**Clothing:** Nitrile smock if available

**Respiratory Protection:** Not required with normal adequate ventilation

**Personal Hygiene:** Avoid breathing fumes during fusion process. Wash hands before eating. Wash contaminated clothing before reuse. Normal washing will be sufficient.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Cream paste with slight odour

**Boiling Range, °C:** 260

**Vapor Pressure (mm Hg @ 20°C):** < 0.001 @ 38 °C

**Vapor Density (Air = 1):** Heavier than air

**Evaporation Rate (BA=1):** Slower than Butyl acetate

**Specific Gravity (Water = 1):** 1.1 – 1.2

**Solubility in water:** Insoluble

**Percent Volatile by volume:** Not applicable

**pH:** 7

## SECTION 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable

**Incompatibility (materials to avoid):** Oxidizing material can cause reaction

**Conditions of Reactivity:** Prolonged exposure to temperatures @ 300° C, Product stable at ambient temperature

**Hazardous Decomposition:** Burning may produce oxides of nitrogen, Carbon dioxide/monoxide

## SECTION 11. TOXICOLOGICAL INFORMATION

There is no known published data available for this product.

## SECTION 12. ECOLOGICAL INFORMATION

There is no known published data available for this product.

## SECTION 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of in accordance with all Local, Provincial and Federal Regulations.

## SECTION 14. TRANSPORT INFORMATION

**Canadian TDG Shipping Description:** Not regulated

**US DOT Classification:** Not regulated

## SECTION 15. REGULATORY INFORMATION

**U.S. TSCA Inventory Status:** All components of these products are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

**Canadian DSL Inventory Status:** All components of these products are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

**Note:** Not available

## SECTION 16. OTHER INFORMATION

**DISCLAIMER:** All information presented herein is given in good faith and is based on sources and tests are considered to be reliable but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product as well as to determine the suitability of this product for a specific purpose. We can make no warranty as to the results to be obtained in using the product. Therefore the user must assume all risk.



**MSDS Prepared by:** Discovery/Lancer Group

**Phone Number:** (204) 885-7792

**Issue Date:** August 21, 2007

**Revision:** 2

**Replaces sheet dated:** July 3, 2003



## MATERIAL SAFETY DATA SHEET

### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer's Name:** Lancer Group International  
311 Saulteaux Crescent  
Winnipeg, Manitoba,  
Canada R3J 3C7

**Emergency Telephone Number:** (204) 889-7422

**Trade Name:** Superhold Powder

**Codes:** H-1, H-10, H-15, H-23

**Chemical Family:** Polyamide

**Product Use:** Fabric bonding hot metal powder for apparel construction

**WHMIS Classification:** D-2B: Toxic material

**24 Hour Emergency Number:** (613) 996-6666 CANUTEC  
(Use in case of a dangerous goods emergency.)

### SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	Percentage	TLV (ppm)	CAS#
Carpolactam	1-5	0.25	000105-60-2

### SECTION 3. HAZARDS IDENTIFICATION

**Effects of Overexposure:** Dust or vapours may cause irritation of eye, skin and respiratory tract. Ingestion would be irritating to the gastrointestinal tract.

**Chronic Overexposure:** None known

### SECTION 4. FIRST AID MEASURES

**Eye Contact:** Immediately flush with flowing water for at least 15 minutes. See a physician if irritation persists.

**Skin Contact:** Wash thoroughly with soap and water. See a physician if irritation persists.

**Inhalation:** No harmful effects are anticipated from breathing dust or a low concentration of vapours. If a problem develops, remove the person to fresh air and supply oxygen if necessary.

**Ingestion:** No harmful effects are anticipated if the powder is swallowed. See a physician if irritation persists.

## SECTION 5. FIRE FIGHTING MEASURES

### **Flammability Properties**

**Flash Point (closed cup, °C):** Not applicable

**Hazardous Combustion Products:** Irritation and/or toxic gases due to decomposition of the polymer may be generated during a fire.

**Explosion Data:** Dispersion of dust into air may pose an explosion hazard.

**Extinguishing Media:** Water spray, carbon dioxide, foam or dry chemical. In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus with full-face piece operated in the positive pressure mode.

**Special Fire Fighting Procedures:** None

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Procedure if Material is Spilled or Released:** Clean spills in a manner that does not disperse dust into the air, preferably a wet-down procedure or vacuum. Use non-sparking tools.

## SECTION 7. HANDLING AND STORAGE

**Handling:** Avoid dispersion of dust into the air to reduce the potential explosion hazard. Eliminate sources of ignition. Conveying and processing equipment should be spark proof, bonded and grounded to prevent accumulation of dust.

**Storage:** Keep powder dry and away from strong acids and strong oxidizing agents

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Provide local ventilation where heat can cause polymer breakdown, eg; extrusion, molding and where there is a need to draw dust and fumes from workers' breathing zones

### **Personal Protective Equipment (PPE)**

**Skin Protection:** Impervious to dust and vapor

**Eye Protection:** Safety glasses with side shields.

**Respiratory Protection:** A NIOSH approved respirator for dust, mists and fumes.

**Other Personal Protective Equipment:** Dust-tight goggles are recommended for dusty operations or areas where vapors accumulate.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** White powder, ppolactam odor may be detected

**Boiling Range, °C:** Not applicable

**Melting/Freezing Point, °C:** 118-128

**Vapor Pressure (mm Hg @ 20°C):** Not applicable

**Vapor Density (Air = 1):** Not applicable

**Specific Gravity (Water = 1):** 1.10

**Solubility in water:** Negligible

**Percent Volatile by Volume:** Not applicable

**pH:** Not established

## SECTION 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable

**Incompatibility:** Acids and strong oxidizing agents

**Hazardous Decomposition Products:** oxides of carbon and nitrogen

**Hazardous Polymerization:** Will not occur

## SECTION 11. TOXICOLOGICAL INFORMATION

**Toxicity Data:** To the best of Lancer Group International knowledge, this material does not contain any chemicals in reportable amounts listed as carcinogen, teratogens, mutagens, or reproductive toxins, as of the date hereof.

**Synergistic Products:** Exposure may aggravate pre-existing conditions such as colds, allergies, asthma, emphysema and psoriasis.

## SECTION 12. ECOLOGICAL INFORMATION

There is no known published data available for this product.

## SECTION 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of waste material in accordance with applicable local, provincial and federal regulations.

## SECTION 14. TRANSPORT INFORMATION

**Canadian TDG Shipping Description:** Not regulated

**US DOT Classification:** Not regulated

## SECTION 15. REGULATORY INFORMATION

**U.S. TSCA Inventory Status:** All components of these products are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

**Canadian DSL Inventory Status:** All components of these products are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

**Note:** Not available

## SECTION 16. OTHER INFORMATION

**DISCLAIMER:** All information presented herein is given in good faith and is based on sources and tests are considered to be reliable but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product as well as to determine the suitability of this product for a specific purpose. We can make no warranty as to the results to be obtained in using the product. Therefore the user must assume all risk.

**MSDS Prepared by:** Discovery/Lancer Group

**Phone Number:** (204) 885-7792

**Issue Date:** August 23, 2007

**Revision:** 2

**Replaces sheet dated:** July 4, 2003



## MATERIAL SAFETY DATA SHEET

### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer's Name:** Lancer Group International  
311 Saulteaux Crescent  
Winnipeg, Manitoba,  
Canada R3J 3C7

**Emergency Telephone Number:** (204) 889-7422

**Trade Name:** Excalibur Direct Print Plastisol Inks

**Codes:** 100 Horizon Series, 400 Color Series, 400 FF Series, 400 LB White, 504 Base, 500 Color Series, 505 Process Base, 5050 White, 525 Competition White, 550 Base, 550 Color Series, 551 Series, 565 White, 567 FF High Opacity White, 579 White, 581 White, 585 White, 595 White, 600 Process Colors, 600 Super Strength Series Process Colors, 700 Series, 750 Stone Print Series, 825 Foam Grip, 834 High Density Base, 835 Super Clear, 837 Coning Base, 1550 SportPro Athletic Series, 1551 ColorPro Athletic Series, 1800 Spot Process Color Series, Jelly Print Series, Knife Coat Series, Spray Plas Base, Retroflec, Quicksilver, Stone Age Series and High Density, and Sponge Base Inks

**Chemical Family:** Plastisol

**Product Use:** Screen printing ink

**WHMIS Classification:** Not controlled

**24 Hour Emergency Number:** (613) 996-6666 CANUTEC  
(Use in case of a dangerous goods emergency.)

### SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	Percentage	TLV (ppm)	CAS#

**Composition comments:** These products do not contain any known currently listed hazardous materials nor do they contain any carcinogenic or suspected carcinogenic agents.

### SECTION 3. HAZARDS IDENTIFICATION

**Primary Routes of Exposure:** Potential routes of overexposure to these products are skin contact and inhalation of fumes during heat processing.

**Effects of Overexposure:** Fumes emitted during fusion may irritate eyes, skin or respiratory tract.

**Chronic Effects:** Skin sensitization and allergenic reactions may occur in certain individuals in slight cases.

**Synergistic Products:** None known

## SECTION 4. FIRST AID MEASURES

**Eye Contact:** Immediately flush eyes with water for 15 minutes.

**Skin Contact:** Remove excess material from skin and wash with soap and water.

**Inhalation:** Remove to fresh air immediately.

**Ingestion:** Get immediate medical attention and advice.

## SECTION 5. FIRE FIGHTING MEASURES

### Flammability Properties

**Flash Point (Closed Cup), °C:** 227

**Hazardous Combustion Products:** Oxide of Carbon, Hydrochloric Acid

**Explosion Limits:** Not applicable

**Explosion Data:** Not applicable

**Extinguishing Media:** CO<sub>2</sub>, Dry Chemical, Foam

**Special Fire Fighting Procedures:** Avoid breathing combustion product or use self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Container may explode when subjected to extreme conditions and temperatures.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Procedure if Material is Spilled or Released:** Scoop material into a clean, properly labeled container for disposal and absorb remainder with inert material.

## SECTION 7. HANDLING AND STORAGE

**Handling:** Handle and open containers with care. Avoid eye contact. Avoid excessive or repeated skin contact. Keep the containers closed when not in use.

**Storage:** Keep the container tightly closed in a cool, dry, well-ventilated area, away from oxidizing and combustible materials.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiration Protection:** Not required with normal adequate ventilation

**Ventilation:** Exhaust system sufficient to remove vapours released during fusion process

**Engineering Controls:** Not necessary

### Personal Protective Equipment (PPE)

**Skin Protection:** Nitrile gloves if continual contact is likely

**Footwear:** Sneakers

**Clothing:** Nitrile smock if available

**Respiratory Protection:** Not required with normal adequate ventilation

**Personal Hygiene:** Avoid breathing fumes during fusion process. Wash hands before eating. Wash contaminated clothing before reuse. Normal washing will be sufficient.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Cream paste with slight odour

**Boiling Range, °C:** 260

**Vapor Pressure (mm Hg @ 20°C):** < 0.001 @ 38 °C

**Vapor Density (Air = 1):** Heavier than air

**Specific Gravity (Water = 1):** 1 – 1.5

**Solubility in water:** Insoluble

**Percent Volatile by volume:** Not applicable

**pH:** 7

## SECTION 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable

**Incompatibility (materials to avoid):** Oxidizing material can cause reaction

**Conditions of Reactivity:** Prolonged exposure to temperatures @ 300° C, Product stable at ambient temperature

**Hazardous Decomposition:** Not established

## SECTION 11. TOXICOLOGICAL INFORMATION

There is no known published data available for this product.

## SECTION 12. ECOLOGICAL INFORMATION

There is no known published data available for this product.

## SECTION 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of in accordance with all Local, Provincial and Federal Regulations.

## SECTION 14. TRANSPORT INFORMATION

**Canadian TDG Shipping Description:** Not regulated

**US DOT Classification:** Not regulated

## SECTION 15. REGULATORY INFORMATION

**U.S. TSCA Inventory Status:** All components of these products are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

**Canadian DSL Inventory Status:** All components of these products are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

**Note:** Not available



## SECTION 16. OTHER INFORMATION

**DISCLAIMER:** All information presented herein is given in good faith and is based on sources and tests are considered to be reliable but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product as well as to determine the suitability of this product for a specific purpose. We can make no warranty as to the results to be obtained in using the product. Therefore the user must assume all risk.

**MSDS Prepared by:** Discovery/Lancer Group

**Phone Number:** (204) 885-7792

**Issue Date:** August 10, 2007

**Revision:** 2

**Replaces sheet dated:** October 3, 2006



## MATERIAL SAFETY DATA SHEET

### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer's Name:** Lancer Group International  
311 Saulteaux Crescent  
Winnipeg, Manitoba,  
Canada R3J 3C7

**Emergency Telephone Number:** (204) 889-7422

**Trade Name:** Puff Additive

**Codes:** PF-97

**Chemical Family:** Polystyrene beads dispersion

**Product Use:** Additive for screen printing ink

**WHMIS Classification:** Not controlled

**24 Hour Emergency Number:** (613) 996-6666 CANUTEC  
(Use in case of a dangerous goods emergency.)

### SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	Percentage	TLV (ppm)	CAS#

**Composition comments:** These products do not contain any known currently listed hazardous materials nor do they contain any carcinogenic or suspected carcinogenic agents.

### SECTION 3. HAZARDS IDENTIFICATION

**Effects of overexposure:** Fumes emitted during fusion may irritate eyes, skin or respiratory tract during fusion may irritate eyes, skin or respiratory tract.

**Chronic Effects:** Skin sensitization and allergenic reactions may occur in certain individuals in slight cases.

**Synergistic products:** None known

### SECTION 4. FIRST AID MEASURES

**Eye Contact:** Immediately flush eyes with water for 15 minutes.

**Skin Contact:** Remove excess material from skin and wash with soap and water.

**Inhalation:** Remove to fresh air immediately.

**Ingestion:** Get immediate medical attention and advice.

## SECTION 5. FIRE FIGHTING MEASURES

### Flammability Properties

**Flash Point (Closed Cup), °C:** 227

**Hazardous Combustion Products:** Oxide of Carbon, Hydrochloric Acid

**Explosion Limits:** Not applicable

**Explosion Data:** Not applicable

**Extinguishing Media:** CO<sub>2</sub>, Dry Chemical, Foam

**Special Fire Fighting Procedures:** Avoid breathing combustion product or use self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Container may explode when subjected to extreme conditions and temperatures.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Procedure if Material is Spilled or Released:** Scoop material into a clean, properly labeled container for disposal and absorb remainder with inert material.

## SECTION 7. HANDLING AND STORAGE

**Handling:** Handle and open containers with care. Avoid eye contact. Avoid excessive or repeated skin contact. Keep the containers closed when not in use.

**Storage:** Keep the container tightly closed in a cool, dry, well-ventilated area, away from oxidizing and combustible materials.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ventilation:** Exhaust system sufficient to remove vapours released during fusion process

**Engineering Controls:** Not necessary

### Personal Protective Equipment (PPE)

**Skin Protection:** Nitrile gloves if continual contact is likely

**Footwear:** Sneakers

**Clothing:** Nitrile smock if available

**Respiratory Protection:** Not required with normal adequate ventilation

**Personal Hygiene:** Avoid breathing fumes during fusion process. Wash hands before eating. Wash contaminated clothing before reuse. Normal washing will be sufficient.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Cream paste with slight odour

**Boiling Range, °C:** 260

**Vapor Pressure (mm Hg @ 20°C):** < 0.001 @ 38 °C

**Vapor Density (Air = 1):** Heavier than air

**Specific Gravity (Water = 1):** 0.96

**Solubility in water:** Insoluble

**Percent Volatile by volume:** Not applicable

**pH:** 7

## SECTION 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable

**Conditions of Reactivity:** No hazardous reactions will occur

**Hazardous Decomposition:** Not established

## SECTION 11. TOXICOLOGICAL INFORMATION

There is no known published data available for this product.

## SECTION 12. ECOLOGICAL INFORMATION

There is no known published data available for this product.

## SECTION 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of in accordance with all Local, Provincial and Federal Regulations.

## SECTION 14. TRANSPORT INFORMATION

**Canadian TDG Shipping Description:** UN 2211 Polymeric Beads Expandable, Class 9.

## SECTION 15. REGULATORY INFORMATION

**U.S. TSCA Inventory Status:** All components of these products are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

**Canadian DSL Inventory Status:** All components of these products are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

**Note:** Not available

## SECTION 16. OTHER INFORMATION

**DISCLAIMER:** All information presented herein is given in good faith and is based on sources and tests are considered to be reliable but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product as well as to determine the suitability of this product for a specific purpose. We can make no warranty as to the results to be obtained in using the product. Therefore the user must assume all risk.

**MSDS Prepared by:** Discovery/Lancer Group

**Phone Number:** (204) 885-7792

**Issue Date:** August 21, 2007

**Revision:** 2

**Replaces sheet dated:** July 3, 2003



## MATERIAL SAFETY DATA SHEET

### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer's Name:** Lancer Group International  
311 Saulteaux Crescent  
Winnipeg, Manitoba,  
Canada R3J 3C7

**Emergency Telephone:** (204) 889-7422

**Trade Name:** Excalibur Plastisol Ink Reducer

**Codes:** 501/1501 Curable Reducer

**Chemical Family:** Plastisol

**Product Use:** Screen printing ink

**CAS #:** See Section II

**WHMIS Classification:** Not controlled

**24 Hour Emergency Number:** (613) 996-6666 CANUTEC

Use in case of a dangerous goods emergency

### SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENTS:	%	TLV (ppm)	CAS
This product is not			
WHMIS controlled			

**Composition comments:** These products do not contain any known currently listed hazardous materials nor do they contain any carcinogenic or suspected carcinogenic agent.

### SECTION 3. HAZARDS IDENTIFICATION

**Effects of Overexposure:** Fumes emitted during fusion may irritate eyes, skin or respiratory tract

**Chronic Overexposure:** Skin sensitization and allergic reactions may occur in certain individuals in slight cases

**Sensitization to Materials:** Skin sensitization and allergic reactions may occur in certain individuals in slight cases

**Synergistic Products:** None known

### SECTION 4. FIRST AID MEASURES

**Eye Contact:** Immediately flush with water for 15 minutes

**Skin Contact:** Remove excess material from skin and wash with soap and water

**Inhalation:** Remove to fresh air immediately

**Ingestion:** Get immediate medical attention and advice

### SECTION 5. FIREFIGHTING MEASURES

**Flammability Properties:**

**Flash Point (Closed Cup) °C:** 227

**Hazardous Combustion Products:** Oxide of Carbon, Hydrochloric Acid

**Explosion Limits:** Not applicable

**Explosion Data:** Not applicable

**Extinguishing Media:** CO<sub>2</sub>, Dry Chemical Foam

**Special Fire Fighting Procedures:** Avoid breathing combustion product or use self-contained breathing apparatus

**Unusual Fire and Explosion Hazards:** Container may explode when subjected to extreme conditions and temperatures

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Steps to be taken in case material is spilled or released:** Scoop material into drum or container suitable, absorb remainder with inert material

## SECTION 7. HANDLING AND STORAGE

Store in a cool place away from oxidizing and combustible materials

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiration Protection:** Not required with normal adequate ventilation

**Ventilation:** Exhaust system sufficient to remove vapours released during fusion process

**Engineering Controls:** Not necessary

**Personal Protective Equipment (PPE)**

**Skin Protection:** Nitrile gloves if continual contact is likely

**Footwear:** Sneakers

**Clothing:** Nitrile smock if available

**Respiratory Protection:** Not required with normal adequate ventilation

**Personal Hygiene:** Avoid breathing fumes during fusion process. Wash hands before eating. Wash Contaminated clothing before reuse. Normal washing will be sufficient.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Cream paste with slight odour

**Boiling Range °C:** 260

**Vapor Pressure (mm Hg @ 20°C):** <.001 kpa @ 38° C

**Vapor Density (Air = 1):** Heavier than air

**Specific Gravity (Water = 1):** 1 – 1.5

**Solubility in water:** Insoluble

**Percent Volatile by volume:** Not applicable

**pH:** 7

## SECTION 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable

**Incompatibility:** (materials to avoid) Oxidizing material can cause reaction

**Conditions of Reactivity:** Prolonged exposure to temperatures @ 300° C, Product stable at ambient temperature

**Hazardous Decomposition:** Not established

## SECTION 11. TOXICOLOGICAL INFORMATION

## SECTION 12. ECOLOGICAL INFORMATION

There is no known published data available for this product.

There is no known published data available for this product.

## SECTION 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of in accordance with all Local, Provincial and Federal Regulations

## SECTION 14. TRANSPORT INFORMATION

**Canadian TDG Shipping Description:** Not regulated.

**US DOT Classification:** Not regulated.

## SECTION 15. REGULATORY INFORMATION

**U.S. TSCA Inventory Status:** All components of these products are either on the Toxic Substances Control Act (TSCA) or exempt.

**Canadian DSL Inventory Status:** All components of these products are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

## SECTION 16. OTHER INFORMATION

**Disclaimer:** All information presented herein is given in good faith and is based on sources and tests are considered to be reliable but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product as well as to determine the suitability of this product for a specific purpose. We can make no warranty as to the results to be obtained in using the product. Therefore the user must assume all risk.

**MSDS Prepared By:** DISCOVERY/LANCER GROUP

**Phone Number:** (204) 885-7792

**Revision Date:** January 23, 2008

**Revision:** 2

**Replaces Sheet Dated:** January 3, 2008



## MATERIAL SAFETY DATA SHEET

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER'S NAME

Lancer Group International  
311 Saulteaux Crescent  
Winnipeg, Manitoba,  
Canada R3J 3C7

EMERGENCY TELEPHONE:

(204) 889-7422

**TRADE NAME: VISCOSITY REDUCER**

CODES: 502, 902

CHEMICAL FAMILY: Ester

PRODUCT USE: Viscosity Reducer

CAS #: 68515-48-0 and 28553-12-0

WHMIS Classification: Not controlled

### SECTION II: HAZARDOUS INGREDIENTS

INGREDIENTS:	%	TLV (ppm)	CAS

### SECTION III: PHYSICAL DATA

Appearance and Odor: Clear oily liquid, mild odour

Boiling Range °C: 252°C

Melting/Freezing Point °C (Water = 0°C): -48°C Approximately

Vapor Pressure (mm Hg): < 0.001 Kpa @ 38°C

Vapor Density (Air = 1): >10

Specific Gravity (Water = 1) @ 20°C: 0.97

Solubility in water: Insoluble

Percent Volatile by volume: Not applicable

pH: Neutral

Evaporation Rate: (Butyl Acetate=1): <0.05

Co-efficient of water / oil distribution: <0.01%

Odour Threshold (ppm): Not applicable



## **SECTION IV: FIRE AND EXPLOSION DATA**

### **FLAMMABILITY PROPERTIES:**

- Flammability: Flammable
- Flammability Conditions:  
Keep away from intense heat, open flame or in the presence of an ignition source
- Flash Point (Closed Cup) °C: 213 °C
- Auto ignition Temperature: >260 °C
- Hazardous Combustion Products: Oxides of Carbon (CO, CO<sub>2</sub>)
- Explosion Limits: NA
- Explosion Data: NA

**EXTINGUISHING MEDIA:** Carbon Dioxide, Dry chemical, Foam water spray

### **SPECIAL FIRE FIGHTING PROCEDURES:**

Firefighters should wear the usual protective gear. Use self-contained breathing apparatus.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Oxides of Carbon.

## **SECTION V: HEALTH HAZARD DATA**

**EFFECTS OF OVEREXPOSURE:** Irritant

**CHRONIC OVEREXPOSURE:** Not available

**TOXICITY DATA:** None Known

**SENSITIZATION TO MATERIALS:** None Known

**SYNERGISTIC PRODUCTS:** Not available

### **EMERGENCY AND FIRST AID MEASURE:**

- Eye Contact: Immediately flush eyes with running water for a minimum of 20 minutes holding eyelids open during flushing. Obtain medical attention immediately.
- Skin Contact: Wash with water and mild soap for at least 15 minutes
- Inhalation: Remove to fresh air. Administer oxygen to aid breathing. Seek medical attention.
- Ingestion: Give large quantities of water to drink. Seek medical attention.
- Additional Information: Promptly remove and wash contaminated clothing prior to reuse.

## **SECTION VI: REACTIVITY DATA**

**CHEMICAL STABILITY:** Product is stable in non-emergency conditions.

INCOMPATIBILITY: Strong Oxidizers

CONDITIONS OF REACTIVITY: Excessive heat, open flame or ignition source and contact with incompatible substances.

HAZARDOUS DECOMPOSITION: Oxides of Carbon (CO, CO<sub>2</sub>)

## **SECTION VII. SPILL OR LEAK PROCEDURES**

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED:

Absorb residual material with sand or other absorbent material. Place in a closed container. Recover using a pump. Ventilate area. Contain spilled material. Wash floor area with hot water solution of oaklite.

WASTE DISPOSAL METHOD: In accordance with Municipal, Provincial and Federal Regulations.

## **SECTION VIII: SPECIAL PROTECTION INFORMATION**

VENTILATION: Local exhaust at points of emission. Mechanical ventilation is satisfactory.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Eye Protection: Wear splash-proof chemical goggles
- Skin Protection: Gloves: Wear impervious gloves
- Footwear: Safety boots as per local regulators
- Clothing: Wear a rubber apron
- Respiratory Protection: Use NIOSH approved respirator
- Other: Eye wash facility should be in close proximity. Wash hands prior to smoking and consuming food.

## **SECTION IX: HANDLING, STORAGE AND SHIPPING INFORMATION**

HANDLING PROCEDURES AND EQUIPMENT:

Maintain a good personal hygiene. Avoid all skin contact. Handle and open container with care. This product must be manipulated by qualified personnel. Keep away from heat, sparks, and open flame. Avoid breathing vapours. Use adequate ventilation. Wash thoroughly after using, particularly before eating or smoking.

STORAGE NEEDS: Store away from oxidizing materials and all sources of ignition. Store in a cool and well ventilated area. Store in a dry place. Keep in a tightly sealed container.

SHIPPING:

- Canadian TDG Shipping Description: Not regulated.
- US DOT Classification: Not regulated.

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DISCLAIMER: All information presented herein is given in good faith and is based on sources and tests are considered to be reliable but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product as well as to determine the suitability of this product for a specific purpose. We can make no warranty as to the results to be obtained in using the product. Therefore the user must assume all risk.

MSDS PREPARED BY: DISCOVERY/LANCER GROUP

PHONE NUMBER: (204) 885-7792

REVISED DATE: January 8, 2008



## Safety Data Sheet (SDS)

Trade Name: Excalibur Direct Print Phthalate-Free Plastisol Inks

Revision Date: February 18, 2015

### SECTION 1

#### Identification of the Substance/Mixture and of the Company/Undertaking

##### 1.1 Product Identifier

**Product Name:** Excalibur Direct Print Phthalate Free Plastisol Ink

**Product Codes:** 100 Horizon PF Series, 400 PF Color Series, 400 PF FF Series, 451 PF Series, 451 PF FF Series, 504 PF Base, 500 PF Color Series, 505 PF Process Base, 5050 Plus PF White, 550 PF Base, 550 PF Color Series, 551 PF Series, 525 Competition White PF, 527 Keystone White PF, 533 PF Series, 565 PF White, 567 PF FF High Opacity White, 579 PF White, 581 PF White, 585 PF White, 595 PF White, 596 Miracle White, 596 Miracle Gold, 600 PF Process Colors, 600 PF Super Series Process Colors, 700 Series PF, 750 PF Stone Print Series, 825 PF Foam Grip, 833 PF Super Clear High Density Ink, 834 PF High Density Base, 835 PF Base, 835 High Density Color Series, 837 PF Coning Base, 838 PF Super Clear High Density Base, 1533 PF Series, 1550 PF SportPro Athletic Series, 1551 PF ColorPro Athletic Series, 1596 Sport Pro Defender, 1800 PF Spot Process Color Series, Jelly Print PF Series, Knife Coat PF Series, Spray Plas PF Base, Retroflec PF, Quicksilver PF, Stone Age PF Series and High Density PF, Sponge Base PF Inks, 801 Excalibur Foil Proof Ink, Suede Ink, Target White, TKO

##### 1.2 Uses/Application

Screen printing ink

##### 1.3 Company (Name, address and phone numbers)

**Lancer Group International**

311 Saulteaux Crescent

Winnipeg, Manitoba,

Canada R3J 3C7

+1 (204) 889-7422

##### 1.4 24 Hour Emergency Number: +1(613) 996-6666 CANUTEC

### SECTION 2

#### Hazards Identification

##### 2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EU) 1272/2008 : Not classified

Not a hazardous substance or mixture according to Regulation (EC) 1272/2008

2.1.2 Classification according to EU Directives 67/548/EC or 1999/45EC : Not classified

This substance is not classified as dangerous according to directive 67/548/EEC

2.1.3 WHMIS Classification: : Not WHMIS controlled

2.1.4 GHS Classification: Not a dangerous substance or mixture

##### 2.2 Label Elements

2.2.1 Labeling according to Regulation (EU) 1272/2008 : Not applicable

2.2.2 Labeling according to Directives (67/548;1999/45 : Not relevant

##### 2.3 Other hazards

Effects of overexposure: Fumes emitted during fusion may irritate the eyes, skin or respiratory tract

Chronic Effects: Skin sensitization and allergenic reactions may occur in certain individuals in slight cases.



## Safety Data Sheet (SDS)

Trade Name: Excalibur Direct Print Phthalate-Free Plastisol Inks

Revision Date: February 18, 2015

### SECTION 3

#### Composition/Information on Ingredients

##### 3.1 Substances

There are no hazardous ingredients as defined under OSHA Regulations 29 CFR 1910.1200

No substances fulfil the criteria set forth in Annex II section A of the REACH regulation 1907/2006

##### 3.2 Mixtures

###### Composition

Ingredients	Percentage	CAS#	Classification according to directive 76/548/EEC	Classification according to directive 1272/2008
Plasticizer Phthalate Free	30-40%	166412-78-8	Not classified	Not classified
Calcium carbonate	15-25%	7789-78-8	Not classified	Not classified
Fume silica	1-5%	112945-52-5	Not classified	Not classified
PVC resin	30-40%	9002-86-2	Not classified	Not classified
Titanium Dioxide	5-40%	13463-67-7	Not classified	Not classified
Organic pigment	10-20%	Mixture	Not classified	Not classified

**Composition comments:** These products do not contain any known currently listed hazardous materials nor do they contain any carcinogenic or suspected carcinogenic agents.

### SECTION 4

#### First aid measures

As a general rule, in case of doubt or if symptoms persist, always call a doctor. NEVER induce swallowing in an unconscious person

##### 4.1 Description of First Aid Measures

4.1.1 Treatment for Eye Contact: Immediately flush eyes with water for 15 minutes holding the eyelids open. If there is any redness, pain or visual impairment consult an ophthalmologist.

4.1.2 Treatment for Skin Contact: Remove contaminated clothing and wash the skin thoroughly with soap and water. In the event of allergic reaction, seek medical attention

4.1.3 Treatment for Inhalation: In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest. If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

4.1.4 Treatment for Ingestion: Do not give the patient anything orally. In the event of swallowing, if quantity is small,



## Safety Data Sheet (SDS)

Trade Name: Excalibur Direct Print Phthalate-Free Plastisol Inks

Revision Date: February 18, 2015

- rinse the mouth with water and consult a doctor. Do not induce vomiting.
- 4.2 Most important symptoms and effects, both acute and delayed  
No data available
- 4.3 Indication of any immediate medical attention and special treatment needed  
No data available

### SECTION 5 Fire-fighting Measures

- 5.1 Extinguishing Media  
Suitable extinguishing media: In the event of fire use carbon dioxide, dry chemical agents, foam.  
Unsuitable extinguishing media: In the event of fire do not use water jet.
- 5.2 Special hazards arising from the substance or mixture: A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health. Do not breathe smoke. In the event of fire, carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>) may be formed.
- 5.3 Advice for firefighters: Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with self-contained breathing apparatus(SCBA).

### SECTION 6 Accidental Release Measures

- 6.1 Personal Precautions, protective equipment and emergency procedures
- 6.1.1 For non-emergency personnel: Avoid inhaling vapors. Avoid any contact with skin and eyes. If large quantity has been spilled, evacuate all personnel and allow intervention by trained operators with safety apparatus
- 6.1.2 For emergency responders: Only qualified personnel equipped with suitable protective equipment may intervene.
- 6.2 Environmental Precautions: Contain and control the leaks or spills with non-combustible absorbent material such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal. Material should not be drained into the sewers.
- 6.3 Methods and material for containment and cleaning-up:  
Scoop material into a clean, properly labeled container for disposal and absorb remainder with inert material.
- 6.4 Reference to other sections: refer to section 8 section 13

### SECTION 7 Handling and Storage

- 7.1 Precautions for safe handling:
- 7.1.1 Handling:  
Handle and open containers with care. Avoid eye contact. Avoid excessive or repeated skin contact. Keep the containers closed when not in use.



## Safety Data Sheet (SDS)

Trade Name: Excalibur Direct Print Phthalate-Free Plastisol Inks

Revision Date: February 18, 2015

### 7.1.2 Hygiene measures:

- Handle in accordance with good industrial hygiene and safety practice.
- Wash hands before taking meal brakes and immediately after handling the product.
- Do not eat, drink or smoke while using the product.
- Remove and wash contaminated clothing before re-use.

### 7.2 Conditions for safe storage, including any incompatibilities:

- Storage Condition :Keep the container tightly closed in a cool, dry, well-ventilated area, away from oxidizing and combustible materials.
- Packaging material: store in original container

### 7.3 Specific end use(s): refer to section 1.2

## SECTION 8

### Exposure controls/personal protection

#### 8.1 Control parameters:

Exposure limits: Not applicable

#### 8.2 Exposure controls:

8.2.1 Engineering Controls: Not necessary

8.2.2 Personal protective equipment:

Skin Protection: Nitrile gloves if continual contact is likely

Personal Hygiene: Avoid breathing fumes during fusion process. Wash hands before eating.

Wash contaminated clothing before reuse. Normal washing will be sufficient.

Respiratory Protection: Wear chemical safety goggles and face shield. Have an eye-wash stations available in the work area.

Ventilation: Exhaust system sufficient to remove vapours released during fusion process.

8.2.3 Environmental Exposure Controls: Do not drain into sanitary sewer system. Comply with applicable community Environmental protection laws.

## SECTION 9

### Physical and Chemical Properties

#### 9.1 General information on basic physical and chemical properties:

Appearance	: Cream paste
Odor	: slight odour
pH	: 7
Melting point/freezing point	: Not determined
Evaporation rate	: Not Available
Flammability	: Not Available
Explosive limits	: Not Available



## Safety Data Sheet (SDS)

Trade Name: Excalibur Direct Print Phthalate-Free Plastisol Inks

Revision Date: February 18, 2015

Relative density	: Not Available
Partition coefficient: n-octanol/water	; Not Available
Auto ignition temperature	: Not Available
Decomposition temperature	: Not Available
Explosive properties	: Not Available
Oxidizing properties	: Not Available
Viscosity	: 30000 – 300000 cps
Boiling Range, °C	: 260
Flash Point (Closed Cup), °C	: 227
Vapor Pressure (mm Hg @ 20°C)	: < 0.001 @ 38 °C
Vapor Density (Air = 1)	: Heavier than air
Specific Gravity (Water = 1)	: 1 – 1.5
Solubility in water	: Insoluble

### 9.2 Other information:

Percent Volatile by volume: Not applicable; Does not contain any volatile organic compounds

Hazardous Air pollutant: Does not contain any HAP's in accordance with US Environmental requirement list

## SECTION 10 Stability and Reactivity

10.1 Reactivity: Product stable at ambient temperature

Conditions of Reactivity: Prolonged exposure to temperatures @ 300° C

10.2 Stability

Chemical Stability: Under storage at normal ambient temperatures(-40 °C to +40 °C, the product is stable

10.3 Possibility of hazardous reactions: Not established

10.4 Conditions to avoid: Heat

10.5 Incompatible material: Oxidizing agents

10.6 Hazardous Decomposition Products: : Carbon monoxide(CO), carbon dioxide (CO<sub>2</sub>)

## SECTION 11 Toxicological Information

11.1 Information on toxicological effects

There is no known published data available for this product.

## SECTION 12 Ecological Information

12.1 Toxicity

There is no known published data available for this product.





## Safety Data Sheet (SDS)

Trade Name: Excalibur Direct Print Phthalate-Free Plastisol Inks

Revision Date: February 18, 2015

### SECTION 13 Disposal Considerations

#### 13.1 Waste Treatment Methods

##### 13.1.1 Product/ Packaging disposal

Waste Category based on European Council directive on Waste :  
080313 (Appendix A –Consolidated European Waste Catalogue)

**Classification:** Non-hazardous

13.1.2 Waste Disposal Method: Dispose of in accordance with appropriate U.S. Federal, State and local regulations, regulations of Canada and regulations of EU member states.

### SECTION 14 Transport Information

Transportation by road/Railway(ADR/RID): Not classified as dangerous goods

Transportation by air(ICA/O/IATA): Not classified as dangerous goods

Transportation by sea(IMDG): Not classified as dangerous goods

Canadian TDG Shipping Description: Not regulated

US DOT Classification: Not regulated

### SECTION 15 Regulatory Information

#### 15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture

The product is not on the list of controlled substances of the following:

Regulation(EC) No.2037/2000

Regulation(EC) No. 850/2004

Regulation(EC) No. 1999/13

U.S. TSCA Inventory Status: All components of these products are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

US EPA CERCLA Hazardous Substances (40 CFR 302): Not applicable

California Proposition 65: Not applicable

SARA Title III Section 302 Extremely Hazardous Substances: Not applicable

SARA Title III Section 313 Toxic Chemicals: Not applicable



## Safety Data Sheet (SDS)

Trade Name: Excalibur Direct Print Phthalate-Free Plastisol Inks

Revision Date: February 18, 2015

Canadian DSL Inventory Status: All components of these products are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

National Pollutant Release Inventory (NPRI): Not applicable

Canadian Classification HMIS Classification: Not Classified

Hazardous Material Identification System:

Health:	1
Flammability:	0
Reactivity:	0
Personal Protection:	A

### SECTION 16

#### Other Information

**DISCLAIMER:** All information presented herein is given in good faith and is based on sources and tests are considered to be reliable but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product as well as to determine the suitability of this product for a specific purpose. We can make no warranty as to the results to be obtained in using the product. Therefore the user must assume all risk.

**MSDS Prepared by:** Discovery/Lancer Group

**Phone Number:** (204) 885-7792

**Issue Date:** June 18, 2013

**Revision:** 10



## MATERIAL SAFETY DATA SHEET

### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer's Name:** Lancer Group International  
311 Saulteaux Crescent  
Winnipeg, Manitoba,  
Canada R3J 3C7

**Emergency Telephone Number:** (204) 889-7422

**Trade Name:** Excalibur Plastisol Printable Adhesives

**Codes:** 841 Printable Adhesive, 842 Printable Adhesive, 843 Caviar Beads Adhesive, 845 Hi-Bond Adhesive, 846 Printable Adhesive, 847 Printable Adhesive and 888 Stretch Back Adhesive

**Chemical Family:** Plastisol

**Product Use:** Screen printing ink

**WHMIS Classification:** Not controlled

**24 Hour Emergency Number:** (613) 996-6666 CANUTEC  
(Use in case of a dangerous goods emergency.)

### SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	Percentage	TLV (ppm)	CAS#

**Composition comments:** These products do not contain any known currently listed hazardous materials nor do they contain any carcinogenic or suspected carcinogenic agents.

### SECTION 3. HAZARDS IDENTIFICATION

**Primary Routes of Exposure:** Potential routes of overexposure to these products are skin contact and inhalation of fumes during heat processing.

**Effects of Overexposure:** Fumes emitted during fusion may irritate eyes, skin or respiratory tract.

**Chronic Effects:** Skin sensitization and allergenic reactions may occur in certain individuals in slight cases.

**Synergistic Products:** None known

### SECTION 4. FIRST AID MEASURES

**Eye Contact:** Immediately flush eyes with water for 15 minutes.

**Skin Contact:** Remove excess material from skin and wash with soap and water.

**Inhalation:** Remove to fresh air immediately.

**Ingestion:** Get immediate medical attention and advice.

## SECTION 5. FIRE FIGHTING MEASURES

### **Flammability Properties**

**Flash Point (Closed Cup), °C:** 227

**Hazardous Combustion Products:** Oxide of Carbon, Hydrochloric Acid

**Explosion Limits:** Not applicable

**Explosion Data:** Not applicable

**Extinguishing Media:** CO<sub>2</sub>, Dry Chemical, Foam

**Special Fire Fighting Procedures:** Avoid breathing combustion product or use self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Container may explode when subjected to extreme conditions and temperatures.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Procedure if Material is Spilled or Released:** Scoop material into a clean, properly labeled container for disposal and absorb remainder with inert material.

## SECTION 7. HANDLING AND STORAGE

**Handling:** Handle and open containers with care. Avoid eye contact. Avoid excessive or repeated skin contact. Keep the containers closed when not in use.

**Storage:** Keep the container tightly closed in a cool, dry, well-ventilated area, away from oxidizing and combustible materials.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiration Protection:** Not required with normal adequate ventilation

**Ventilation:** Exhaust system sufficient to remove vapours released during fusion process

**Engineering Controls:** Not necessary

### **Personal Protective Equipment (PPE)**

**Skin Protection:** Nitrile gloves if continual contact is likely

**Footwear:** Sneakers

**Clothing:** Nitrile smock if available

**Respiratory Protection:** Not required with normal adequate ventilation

**Personal Hygiene:** Avoid breathing fumes during fusion process. Wash hands before eating. Wash contaminated clothing before reuse. Normal washing will be sufficient.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Cream paste with slight odour

**Boiling Range, °C:** 260

**Vapor Pressure (mm Hg @ 20°C):** < 0.001 @ 38 °C

**Vapor Density (Air = 1):** Heavier than air

**Evaporation Rate (BA=1):** Slower than Butyl acetate

**Specific Gravity (Water = 1):** 1.1 – 1.2

**Solubility in water:** Insoluble

**Percent Volatile by volume:** Not applicable

**pH:** 7

## SECTION 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable

**Incompatibility (materials to avoid):** Oxidizing material can cause reaction

**Conditions of Reactivity:** Prolonged exposure to temperatures @ 300° C, Product stable at ambient temperature

**Hazardous Decomposition:** Burning may produce oxides of nitrogen, Carbon dioxide/monoxide

## SECTION 11. TOXICOLOGICAL INFORMATION

There is no known published data available for this product.

## SECTION 12. ECOLOGICAL INFORMATION

There is no known published data available for this product.

## SECTION 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of in accordance with all Local, Provincial and Federal Regulations.

## SECTION 14. TRANSPORT INFORMATION

**Canadian TDG Shipping Description:** Not regulated

**US DOT Classification:** Not regulated

## SECTION 15. REGULATORY INFORMATION

**U.S. TSCA Inventory Status:** All components of these products are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

**Canadian DSL Inventory Status:** All components of these products are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

**Note:** Not available

## SECTION 16. OTHER INFORMATION

**DISCLAIMER:** All information presented herein is given in good faith and is based on sources and tests are considered to be reliable but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product as well as to determine the suitability of this product for a specific purpose. We can make no warranty as to the results to be obtained in using the product. Therefore the user must assume all risk.

**MSDS Prepared by:** Discovery/Lancer Group

**Phone Number:** (204) 885-7792

**Issue Date:** August 21, 2007

**Revision:** 2

**Replaces sheet dated:** July 3, 2003



## MATERIAL SAFETY DATA SHEET

### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer's Name:** Lancer Group International  
311 Saulteaux Crescent  
Winnipeg, Manitoba,  
Canada R3J 3C7

**Emergency Telephone Number:** (204) 889-7422

**Trade Name:** Superhold Powder

**Codes:** H-1, H-10, H-15, H-23

**Chemical Family:** Polyamide

**Product Use:** Fabric bonding hot metal powder for apparel construction

**WHMIS Classification:** D-2B: Toxic material

**24 Hour Emergency Number:** (613) 996-6666 CANUTEC  
(Use in case of a dangerous goods emergency.)

### SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	Percentage	TLV (ppm)	CAS#
Carpolactam	1-5	0.25	000105-60-2

### SECTION 3. HAZARDS IDENTIFICATION

**Effects of Overexposure:** Dust or vapours may cause irritation of eye, skin and respiratory tract. Ingestion would be irritating to the gastrointestinal tract.

**Chronic Overexposure:** None known

### SECTION 4. FIRST AID MEASURES

**Eye Contact:** Immediately flush with flowing water for at least 15 minutes. See a physician if irritation persists.

**Skin Contact:** Wash thoroughly with soap and water. See a physician if irritation persists.

**Inhalation:** No harmful effects are anticipated from breathing dust or a low concentration of vapours. If a problem develops, remove the person to fresh air and supply oxygen if necessary.

**Ingestion:** No harmful effects are anticipated if the powder is swallowed. See a physician if irritation persists.

## SECTION 5. FIRE FIGHTING MEASURES

### **Flammability Properties**

**Flash Point (closed cup, °C):** Not applicable

**Hazardous Combustion Products:** Irritation and/or toxic gases due to decomposition of the polymer may be generated during a fire.

**Explosion Data:** Dispersion of dust into air may pose an explosion hazard.

**Extinguishing Media:** Water spray, carbon dioxide, foam or dry chemical. In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus with full-face piece operated in the positive pressure mode.

**Special Fire Fighting Procedures:** None

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Procedure if Material is Spilled or Released:** Clean spills in a manner that does not disperse dust into the air, preferably a wet-down procedure or vacuum. Use non-sparking tools.

## SECTION 7. HANDLING AND STORAGE

**Handling:** Avoid dispersion of dust into the air to reduce the potential explosion hazard. Eliminate sources of ignition. Conveying and processing equipment should be spark proof, bonded and grounded to prevent accumulation of dust.

**Storage:** Keep powder dry and away from strong acids and strong oxidizing agents

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Provide local ventilation where heat can cause polymer breakdown, eg; extrusion, molding and where there is a need to draw dust and fumes from workers' breathing zones

### **Personal Protective Equipment (PPE)**

**Skin Protection:** Impervious to dust and vapor

**Eye Protection:** Safety glasses with side shields.

**Respiratory Protection:** A NIOSH approved respirator for dust, mists and fumes.

**Other Personal Protective Equipment:** Dust-tight goggles are recommended for dusty operations or areas where vapors accumulate.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** White powder, ppolactam odor may be detected

**Boiling Range, °C:** Not applicable

**Melting/Freezing Point, °C:** 118-128

**Vapor Pressure (mm Hg @ 20°C):** Not applicable

**Vapor Density (Air = 1):** Not applicable

**Specific Gravity (Water = 1):** 1.10

**Solubility in water:** Negligible

**Percent Volatile by Volume:** Not applicable

**pH:** Not established



## SECTION 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable

**Incompatibility:** Acids and strong oxidizing agents

**Hazardous Decomposition Products:** oxides of carbon and nitrogen

**Hazardous Polymerization:** Will not occur

## SECTION 11. TOXICOLOGICAL INFORMATION

**Toxicity Data:** To the best of Lancer Group International knowledge, this material does not contain any chemicals in reportable amounts listed as carcinogen, teratogens, mutagens, or reproductive toxins, as of the date hereof.

**Synergistic Products:** Exposure may aggravate pre-existing conditions such as colds, allergies, asthma, emphysema and psoriasis.

## SECTION 12. ECOLOGICAL INFORMATION

There is no known published data available for this product.

## SECTION 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of waste material in accordance with applicable local, provincial and federal regulations.

## SECTION 14. TRANSPORT INFORMATION

**Canadian TDG Shipping Description:** Not regulated

**US DOT Classification:** Not regulated

## SECTION 15. REGULATORY INFORMATION

**U.S. TSCA Inventory Status:** All components of these products are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

**Canadian DSL Inventory Status:** All components of these products are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

**Note:** Not available

## SECTION 16. OTHER INFORMATION

**DISCLAIMER:** All information presented herein is given in good faith and is based on sources and tests are considered to be reliable but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product as well as to determine the suitability of this product for a specific purpose. We can make no warranty as to the results to be obtained in using the product. Therefore the user must assume all risk.

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