

## Material Safety Data Sheet

### Smartcolor Srl

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### 1 - PRODUCT IDENTIFICATION

Product Name: Ink

ProductType: Ultra Grip 4 Plus

### 2 - COMPOSITION/INFORMATION OF INGREDIENTS

| Ingredients                                | CAS-No.                    | Percent  |
|--|----------------------------|----------|
| Resin<br>(FDA approved for food package)   | Not Hazardous Trade Secret | 1%-10%   |
| Pigment                                    | Not Hazardous              | 20%-30%  |
| Glycol EtherType                           | Not Hazardous Trade Secret | 10%-30%  |
| 2-Ethoxy Ethyl Ether                       | 112-36-7                   | 20%-40%  |
| 1-Methyl -2-Pyrrolidinone                  | 872-50-4                   | 1%-5%    |
| Ethylene Glycol Monobutyl<br>Ether Acetate | 112-07-2                   | 10%-30%  |
| Surfactant                                 | Not Hazardous Trade Secret | 0.1-1.0% |

### 3 - HAZARDS

#### Potential Health Effects

Inhalation: May cause respiratory irritation.

Skin Contact: May cause severe skin irritation.

Eye Contact: May cause severe eye irritation.

Ingestion: Ingestion may be harmful or fatal.

## 4 - FIRST AID MEASURES

### First Aid INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

### SKIN CONTACT

In case of contact, immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Call a physician. Wash contaminated clothing before reuse.

### EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

### INGESTION

If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

## 5 - FIRE FIGHTING MEASURES

Hazardous gases/vapors produced in fire are carbon monoxide, carbon dioxide, oxides of nitrogen. Extinguishing Media CO<sub>2</sub>, Dry Chemical. Do NOT use direct water stream.

### Fire Fighting Instructions

Wear self-contained breathing apparatus (SCBA) and full protective equipment.

## 6 - ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel) NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Eliminate all sources of ignition - heat, sparks, flame, electricity, impact and friction. Initial Containment Dike spill. Spill Clean Up Soak up with sawdust, sand, oil dry or other absorbent material.

## 7 - HANDLING AND STORAGE

**Handling** (Personnel) Avoid inhalation. Avoid contact with eyes, skin or clothing. Washing thoroughly after handling. Wash clothing after use. **Handling** (Physical Aspects) Keep container tightly closed. Store out of reach of children.

### Storage

Store in a cool, dry place.

**Avoid freezing or extended Storage in high temperatures. Avoid exposure to moisture.**

## 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation.

Personal Protective Equipment

### EYE/FACE PROTECTION

Wear safety glasses, or where splash potential exists wear Chemical splash goggles.

### RESPIRATORS

Where the potential exists for airborne exposure, wear NIOSH approved respiratory protection. **PROTECTIVE CLOTHING**

Where there is potential for skin contact, have available and wear as appropriate impervious gloves, apron or smock

## 9 - PHYSICAL AND CHEMICAL PROPERTIES

|    |                                    |   |
|----|------------------------------------|---|
| 1  | Compatible plotter                 | Roland SJ series, Mimaki JV-3, Mutoh RHII               |
| 2  | Color                              | Cyan, Magenta, Yellow, Black, Light Cyan, Light Magenta |
| 3  | Odor                               | Mild odor   |
| 4  | Boiling point/boiling range of ink | approx. 180 °C  |
| 5  | Solidification temperature of ink  | approx. -35 °C  |
| 6  | Flash point of ink                 | 75 °C   |
| 7  | Ignition temperature of ink        | not below 220 °C  |
| 8  | Viscosity of ink (cp)              | 5.0 ± 1.0   |
| 9  | Surface Tension of ink (dyne/cm)   | 28 ± 3.0  |
| 10 | Density of ink                     | 1.0210.01   |
| 11 | Lightfastness                      | 5-8   |
| 12 | Weather fastness                   | at least 1.5 year outdoor                               |
| 13 | Solid content (%)                  | 10-20   |

The Physical and Chemical data given in **Section 9** are typical values for this product and are not intended to be product specifications.

## 10 - STABILITY AND REACTIVITY

### Chemical Stability

Stable at normal temperatures and Storage conditions.

Incompatibility with Other Materials Incompatible or can react with acids, strong oxidizers.

### Decomposition

Thermal decomposition may produce carbon dioxide, carbon monoxide.

## 11 - TOXICOLOGICAL INFORMATION

CAS# 112-36-7: Draizetest, rabbit, eye: 50mg Moderate; Oral, rat: LD50 = 4970 mg/kg; Skin, rabbit: LD50 = 6700 uL/kg.

CAS# 872-50-4: Draizetest, rabbit, eye: 100mg Moderate; Oral, mouse: LD50 = 5130 mg/kg; Oral, rat: LD50 = 3914 mg/kg; Skin, rabbit: LD50 = 8 gm/kg.

CAS# 112-07-2: Draizetest, rabbit, eye: 500mg/24HMild; Oral, mouse: LD50 = 3200 mg/kg; Oral, rat: LD50 = 2400 mg/kg; Skin, rabbit: LD50 = 1500 mg/kg.

The information shown in SECTION 3, Hazards identification, is based on toxicity profiles of similar materials or on the components present in this material.

## 12 - ECOLOGICAL INFORMATION

CAS# 105-45-3: Fish: Gold orfe: LC50: 250 mg/1; 48h; Daphnia: Daphnia: EC50: 600 mg/1; 24h; .Algae: EC50: 100 mg/1; 72h; .Log Pow: -0.26 Biodegradability: Zahn-Wellens Test: 100.0%, 5days

CAS# 872-50-4: Fish: Leuciscusidus: LC50 = 4000 mg/1; 96h; Daphnia: Daphnia: EC50 = 4897 mg/1; 48 h; Algae: IC50 = >500 mg/1; 72 h; Bacteria: EC50 = >9000 mg/1; 48 h; log Pow = -0.46 (25°C) BOD5 = 1.1 COD = 1.6

## 13 - DISPOSAL CONSIDERATIONS

### Waste Disposal

Treatment, Storage, Transportation and Disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

## 14 - TRANSPORT INFORMATION

General: Not a regulated article under United States DOT, IATA, ADR, IMDQ or RID IATA

Proper shipping name: Not applicable

Hazard class: Not applicable

Packaging exceptions: None

Identification number: None (UN)

Packing group: N/A

## 15 - OTHER INFORMATION

### **Label Hazard Warning:**

WARNING! COMBUSTIBLE LIQUID AND VAPOR. HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY AFFECT KIDNEYS AND CENTRAL NERVOUS SYSTEM.

### **Label Precautions:**

Keep away from heat and flame.  
Avoid breathing mist.  
Avoid contact with eyes, skin and clothing.  
Keep container closed.  
Use only with adequate ventilation.  
Washing thoroughly after handling.

### **Label First Aid:**

If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. In all cases call a physician.

### **Product Use:**

Laboratory Reagent.

### **Revision Information:**

No Changes.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.