

LIP PIGMENTS

MSDS

*A Permanent Solution*



**IMPORTANT NOTE:**

Glycerin, Alcohol and Water are ingredients in all our pigment formulas. Those specs can be found on our site at [www.apermanentsolution.com](http://www.apermanentsolution.com) , in separate documents.



# Material Safety Data Sheet

Pigment Ink

TN-3

Brown Velvet

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## 1. Product and Company Identification

Product Name: Pigment Ink  
Product Code: TN-3  
Company: A Permanent Solution  
1038 E. Bastanchury Road #186  
Fullerton, CA 92835 USA  
www.apermanentsolution.com E-mail: info@apermanentsolution.com  
Phone: (714) 441-1900 Fax: (714) 441-1808

## 2. Hazards Identification

Physical State: Solid.  
OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
Emergency Overview: No specific hazard.  
MAY CAUSE EYES AND SKIN IRRITATION. CANCER HAZARD-CONTAINS MATERIAL WHICH CAN CAUSE CANCER.  
Slightly irritating to the eyes and skin. Avoid exposure-obtain special instructions before use. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure. Wash thoroughly after handling.  
Potential acute health effects:  
Eyes: Slightly irritating to the eyes. This product may irritate eyes upon contact.  
Skin: Slightly irritating to the skin.  
Inhalation: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.  
Ingestion: No known significant effects or critical hazards.

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## 3. Composition/Information on Ingredients

Iron Oxide Red C.A.S # 1309-37-1  
Talc C.A.S. # 14807-96-6  
Barium Sulfate C.A.S. # 7727-43-7

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Pigment Ink

TN-3

Brown Velvet

1

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Magnesite C.A.S. # 546-93-0  
Crystalline Silica, Quartz C.A.S. # 14808-60-7  
Kaolin Clay C.A.S. # 1332-58-7

There are no additional ingredients which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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#### 4. First Aid Measures

Eye Contact:	Remove contact lenses if present. Thoroughly flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact:	Wash skin with soap and water. Get medical attention if irritation develops.
Inhalation:	Move to fresh air. Get medical attention if irregular breathing occurs.
Ingestion:	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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#### 5. Fire-Fighting Measures

Products of Combustion:	Decomposition products may include the following materials: Carbon dioxide, carbon monoxide, sulfure oxides, metal oxide(s)
Fire-Fighting media and Instructions:	Use an extinguishing agent for the surrounding fire.
Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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#### 6. Accidental Release Measures

Personal Precautions:	Keep unnecessary personnel away. Provide adequate ventilation. Use suitable protective equipment (section 8).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods for Cleaning Up:	If emergency personnel are unavailable, carefully scoop up spilled materials and use a non-sparking or explosion proof means to transfer to an appropriated container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

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#### 7. Handling and Storage

Handling:	Do not get in eyes or on skin or clothing. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Avoid breathing dust.
Storage:	Keep container tightly closed. Store in a dry, cool and well-ventilated area. Store in accordance with local regulations.

## 8. Exposure Controls/Personal Protection

Engineering Measures:	If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.	
Environmental Exposure Controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.	
Personal Protection:	Safety glasses should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates this is necessary.	
Exposure Limits:	Iron Oxide Red	<p>NIOSH REL (United States, 6/2009).  TWA: 5 mg/m<sup>3</sup>, (as Fe) 10 hour(s). Form: Dust and fumes  OSHA PEL 1989 (United States, 3/1989).  STEL: 10 ppm, (as Fe) 15 minutes(s). Form: Total particulates  ACGIH TLV (United States, 1/2011).  TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction  OSHA PEL 1989 (United States, 3/1989).  TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction  TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: Total dust  OSHA PEL (United States, 6/2010).  TWA: 10 mg/m<sup>3</sup> 8 hour(s).</p>
	Talc	<p>OSHA PEL 1989 (United States, 3/1989).  TWA: 2 mg/m<sup>3</sup> 8 hour(s). Form: Respirable dust  NIOSH REL (United States, 6/2009).  TWA: 2 mg/m<sup>3</sup> 10 hour(s). Form: Respirable fraction  ACGIH TLV (United States, 1/2011).  TWA: 01 f/cc 8 hour(s).  OSHA PEL Z3 (United States, 9/2005).  STEL: 1 f/cc 30 minute(s). Form: not containing asbestos  TWA: 20 mppcf 8 hour(s). Form: not containing asbestos  TWA: 0.1 f/cc 8 hour(s).  STEL: 1 f/cc 30 minute(s).</p>

	<p>TWA: 5 mg/m<sup>3</sup> 10 hour(s). Form: Respirable fraction  TWA: 10 mg/m<sup>3</sup> 10 hour(s). Form: Total dust  OSHA PEL (United States, 6/2010).  TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction  TWA: 15 mg/m<sup>3</sup> 8 hour(s). Form: Total dust  NIOSH REL (United States, 6/2009).  TWA: 5 mg/m<sup>3</sup> 10 hour(s). Form: Respirable fraction  TWA: 10 mg/m<sup>3</sup> 10 hour(s). Form: Total dust  OSHA PEL (United States, 6/2010).  TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction  TWA: 15 mg/m<sup>3</sup> 8 hour(s). Form: Total dust  OSHA PEL 1989 (United States, 3/1989).  TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction  TWA: 15 mg/m<sup>3</sup> 8 hour(s). Form: Total dust  OSHA PEL Z3 (United States, 9/2005). Notes: 10/(SiO2+2)  TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: Respirable  OSHA PEL Z3 (United States, 9/2005). Notes: 250/(%SiO2+5)  TWA: 250 mppcf 8 hour(s). Form: Respirable  OSHA PEL 1989 (United States, 3/1989).  TWA: 0.1 mg/m<sup>3</sup>, (as quartz) 8 hour(s). Form: Respirable dust  ACGIH TLV (United States, 1/2011).  TWA: 0.025 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction  NIOSH REL (United States, 6/2009).  TWA: 0.05 mg/m<sup>3</sup> 10 hour(s). Form: Respirable dust  OSHA PEL Z3 (United States, 9/2005). Notes: 30/(%SiO2+2)  TWA: 30 mg/m<sup>3</sup> 8 hour(s). Form: Total dust  ACGIH TLV (United States, 1/2011).  TWA: 2 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction  OSHA PEL 1989 (United States, 3/1989).  TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction  TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: Total dust  OSHA PEL 1989 (United States, 3/1989).  TWA: 0.1 mg/m<sup>3</sup>, (as quartz) 8 hour(s). Form: Respirable dust  NIOSH REL (United States, 6/2009).  TWA: 5 mg/m<sup>3</sup> 10 hour(s). Form: Respirable fraction  TWA: 10 mg/m<sup>3</sup> 10 hour(s). Form: Total dust  OSHA PEL (United States, 6/2010).  TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction  TWA: 15 mg/m<sup>3</sup> 8 hour(s). Form: Total dust</p>
Magnesite	
Crystalline Silica, Quartz	
Kaolin Clay	

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## 9. Physical and Chemical Properties

Physical State:	Solid
Appearance:	Brown Powder
Flash Point:	Closed cup: 500°C (932°F)

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## 10. Stability and Reactivity

Stability:	The product is stable.
Hazardous Polymerization:	Will not occur.
Hazardous Decomposition Products:	Under normal conditions of storage and use, hazardous decomposition should not be produced.

Pigment Ink

TN-3

Brown Velvet

4

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## 11. Toxicological Information

Chronic Effects:	Iron Oxide Red	ACGIH = A4	IARC = 3		
	Talc	ACGIH = A1	IARC = 1		
	Crystalline Silica	ACGIH = A2	IARC = 1	NIOSH = +	NTP=PROVEN.
	Kaolin Clay	ACGIH = A4			

Slightly irritating to the eyes and skin. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure. Wash thoroughly after handling.

Mutagenicity/Teratogenicity: No known significant effects or critical hazards.

Reproductive Toxicity: No known significant effects or critical hazards.

## 12. Ecological Information

Environmental Effects: No known significant effects or hazards.

Aquatic Ecotoxicity:	Barium Sulfate	Result: Acute EC50 32000 ug/L Fresh water Species: Daphnia-water flea-Daphnia magna Exposure: 48 hours
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## 13. Disposal Considerations

Waste Disposal:	The generation of waste should be avoided or minimized whenever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
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## 14. Transport Information

DOT Classification: Refer to the bill of lading for proper shipping information.

Pigment Ink	TN-3	Brown Velvet	5
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## 15. Regulatory Information

OSHA/HCS Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

WHMIS (Canada): Class D-2A: Material causing other toxic effects.

Europe:

This product is not classified according to EU legislation.

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## 16. Other Information

### Hazardous Materials Information System (USA):

Health: 1  
Flammability: 1  
Physical Hazards: 1  
Personal Protection: B

### National Fire Protection Association (USA):

Health: 1  
Flammability: 1  
Instability: 1

Date of Revision: May 31, 2012



# Material Safety Data Sheet

Pigment Ink

TN-4

Golden Luv-It

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## 17. Product and Company Identification

Product Name: Pigment Ink  
Product Code: TN-4  
Company: A Permanent Solution  
1038 E. Bastanchury Road #186  
Fullerton, CA 92835 USA  
www.apermanentsolution.com E-mail: info@apermanentsolution.com  
Phone: (714) 441-1900 Fax: (714) 441-1808

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## 18. Hazards Identification

Physical State: Solid.  
OSHA/HCS Status: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of the product.  
Emergency Overview: NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.  
No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.  
Potential acute health effects:  
Eyes: This product may irritate eyes upon contact.  
Skin: No known significant effects or critical hazards.  
Inhalation: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.  
Ingestion: No known significant effects or critical hazards.

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## 19. Composition/Information on Ingredients

Kowet TI02 3970 C.A.S # 13463-67-7

There are no additional ingredients which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Pigment Ink

TN-4

Golden Luv-It

1

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## 20. First Aid Measures

Eye Contact:	Remove contact lenses if present. Thoroughly flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact:	Wash skin with soap and water. Get medical attention if irritation develops.
Inhalation:	Move to fresh air. Get medical attention if irregular breathing occurs.
Ingestion:	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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## 21. Fire-Fighting Measures

Fire-Fighting media and Instructions:	Use an extinguishing agent for the surrounding fire.
Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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## 22. Accidental Release Measures

Personal Precautions:	Keep unnecessary personnel away. Provide adequate ventilation. Use suitable protective equipment (section 8).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods for Cleaning Up:	If emergency personnel are unavailable, carefully scoop up spilled materials and use a non-sparking or explosion proof means to transfer to an appropriated container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

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## 23. Handling and Storage

Handling:	Avoid breathing dust.
Storage:	Keep container tightly closed. Store in a dry, cool and well-ventilated area. Store in accordance with local regulations.

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## 24. Exposure Controls/Personal Protection

Engineering Measures:	No special ventilation requirements. Good general ventilation should be
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<b>Environmental Exposure Controls:</b>	local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits. Emissions from ventilation or work process equipment should be checked to ensure they comply with requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.		
<b><u>Personal Protection:</u></b>			
<b>Eyes:</b>	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.		
<b>Skin:</b>	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.		
<b>Respiratory:</b>	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.		
<b>Hands:</b>	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.		
<b>Exposure Limits:</b>	<table border="0"> <tr> <td style="vertical-align: top;">Kowet TI02 3970</td> <td> ACGIH TLV (United States, 1/2011).  TWA: 10 mg/m<sup>3</sup> 8 hour(s).  OSHA PEL 1989 (United States, 3/1989).  TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: Total dust  OSHA PEL (United States, 6/2010).  TWA: 15 mg/m<sup>3</sup> 8 hour(s). </td> </tr> </table>	Kowet TI02 3970	ACGIH TLV (United States, 1/2011). TWA: 10 mg/m <sup>3</sup> 8 hour(s). OSHA PEL 1989 (United States, 3/1989). TWA: 10 mg/m <sup>3</sup> 8 hour(s). Form: Total dust OSHA PEL (United States, 6/2010). TWA: 15 mg/m <sup>3</sup> 8 hour(s).
Kowet TI02 3970	ACGIH TLV (United States, 1/2011). TWA: 10 mg/m <sup>3</sup> 8 hour(s). OSHA PEL 1989 (United States, 3/1989). TWA: 10 mg/m <sup>3</sup> 8 hour(s). Form: Total dust OSHA PEL (United States, 6/2010). TWA: 15 mg/m <sup>3</sup> 8 hour(s).		

## 25. Physical and Chemical Properties

<b>Physical State:</b>	<b>Solid</b>
<b>Appearance:</b>	<b>Yellow Powder</b>
<b>Flash Point:</b>	<b>Closed cup: 500°C (932°F)</b>

## 26. Stability and Reactivity

<b>Stability:</b>	The product is stable.
<b>Hazardous Polymerization:</b>	Under normal conditions of storage and use, hazardous polymerization will not occur.
<b>Hazardous Decomposition Products:</b>	Under normal conditions of storage and use, hazardous decomposition should not be produced.

## 27. Toxicological Information

Chronic Effects:	Kowet TI02 3970	ACGIH = A4	IARC = 2B	NIOSH = +
Other Toxic Effects on Humans:	No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.			
Mutagenicity/Teratogenicity:	No known significant effects or critical hazards.			
Reproductive Toxicity:	No known significant effects or critical hazards.			

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## 28. Ecological Information

Environmental Effects:	No known significant effects or hazards.
Aquatic Ecotoxicity:	Slightly toxic to aquatic life.

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## 29. Disposal Considerations

Waste Disposal:	The generation of waste should be avoided or minimized whenever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
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## 30. Transport Information

DOT Classification:	Refer to the bill of lading for proper shipping information.
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## 31. Regulatory Information

OSHA/HCS Status:	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
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Pigment Ink	TN-4	Golden Luv-It	4
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WHMIS (Canada):	Not controlled under WHMIS (Canada).
Europe:	This product is not classified according to EU legislation.

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## 32. Other Information

### Hazardous Materials Information System (USA):

Health: 2  
Flammability: 1  
Physical Hazards: 0  
Personal Protection: B

### National Fire Protection Association (USA):

Health: 2  
Flammability: 1  
Instability: 0

Date of Revision: July 5, 2012



# Material Safety Data Sheet

Pigment Ink

TN-5

Tahitian Brown

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## 33. Product and Company Identification

Product Name: Pigment Ink  
Product Code: TN-5  
Company: A Permanent Solution  
1038 E. Bastanchury Road #186  
Fullerton, CA 92835 USA  
www.apermanentsolution.com E-mail: info@apermanentsolution.com  
Phone: (714) 441-1900 Fax: (714) 441-1808

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## 34. Hazards Identification

Hazardous Ingredients: None

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## 35. Physical Data

Appearance: Solid Powder  
Color: Red  
Odor: Odorless  
Melt Point/Freeze Point: Greater than 1832°F (1000°C)  
Boiling Point: Not Established  
Vapor Pressure: Not Applicable  
pH: Approx. 4-8 at 50 g/l H<sub>2</sub>O in aqueous suspension; DIN 787/9  
Specific Gravity: Approx. 5 @ 68 F (20 C); DIN 787-10  
Solubility in Water: Insoluble  
Bulk Density: 600-1000 kg/m<sup>3</sup> at 68 F (20 C)

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## 36. Fire and Explosion Data

Flash Point: Not Applicable  
Flammable Limits: Lel-Not Applicable Uel-Not Applicable

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Pigment Ink

TN-5

Tahitian Brown

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Extinguishing Media: Material is not combustible. Use extinguishing agents that are suitable to the surrounding fire.

Special Fire Fighting Procedures/  
Unusual Fire or Explosion Hazards: None

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### 37. Human Health Data

**Primary Route(s) of Exposure:** Eye Contact, Skin Contact, Inhalation

**Human Effects and Symptoms of Overexposure:**

**Acute:** On the basis of Animal toxicity data (see section XII), we would expect this product to be non-irritating to the eyes and skin and essentially non-toxic by ingestion. However, excessive exposure to airborne dust may reduce visibility and/or cause unpleasant deposits in the eyes, ears and nose. Injury to the skin or mucous membranes can occur by direct mechanical action or by rigorous skin cleansing necessary for removal of dust.

**Chronic:** Not Known.

**Other:** Prolonged inhalation (6-10 years) of iron oxide fume has been reported to produce changes in lung x-rays of exposed individuals. This condition, siderosis, is considered to be a benign pneumoconiosis that exhibits no adverse health effects. Siderosis has been observed among occupations such as arc-welders where iron oxide fumes are present. To the best of our knowledge, this condition has not been observed after prolonged exposure to iron oxide pigments.

**Medical Conditions Aggravated By Exposure:** None Known

**Carcinogenicity:** NTP: Not Listed  
IARC: Not Listed  
OSHA: Not Listed  
Other: IARC and NTP both contain listings for underground hematite mining. These listings are for the occupational exposures associated with the mining process which include radon, a known lung carcinogen. NIOSH in the Registry of Toxic Effects of Chemical Substances (RTECS) lists iron oxide as a suspect human carcinogen. However, the IARC reference to underground hematite mining is the source for this classification. Based on information currently available this product is not considered a carcinogen.

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### 38. Emergency & First Aid Procedures

**Eye Contact:** Flush eyes with plenty of water, lifting lids periodically for at least 15 minutes. Consult a physician if irritation persists.

**Skin Contact:** Wash with soap and water.

**Inhalation:** Remove from dusty area to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Ingestion:** Immediately contact a physician.

Pigment Ink

TN-5

Tahitian Brown

2

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### 39. Employee Protection Recommendations

**Eye Protection:** Safety glasses.

**Skin Protection:** Rubber, cloth or plastic gloves if appropriate for job conditions.

<b>Respiratory Protection:</b>	Work ambient concentrations should be monitored and if the recommended exposure limit is exceeded, a NIOSH/MSHA approved dust respirator should be worn. Do not exceed use limits of the respirator.
<b>Ventilation:</b>	Use local ventilation to maintain air levels below the recommended exposure limit if dusting is a problem.
<b>Other:</b>	Eye wash stations and washing facilities should be available. Employees should wash their hands and face before eating, drinking or using tobacco products.

#### 40. Reactivity Data

<b>Stability:</b>	This is a stable material.
<b>Polymerization:</b>	Will not occur.
<b>Incompatibilities:</b>	None Known.
<b>Instability Conditions:</b>	None Known.
<b>Decomposition Temperature:</b>	Not Established.
<b>Decomposition Products:</b>	None Known.

#### 41. Spill or Leak Procedures

Steps to be taken in case material is released or spilled: Vacuum or scoop material into an appropriately marked container for reclamation or disposal. Avoid excessive generation of dust. If dust is generated, use appropriate respiratory protection.

Waste disposal method: Material which cannot be recycled into your process should be landfilled in accordance with federal, state and local environmental control regulations.

#### 42. Special Precautions and Storage Data

<b>Storage Temperature (min./max.):</b>	Ambient/Ambient
<b>Average Shelf Life:</b>	Unlimited
<b>Special Sensitivity:</b>	None Known
<b>Handling &amp; Storage:</b>	Store dry at ambient temperature away from food and beverages. Avoid breathing dust. Avoid contact with eyes and skin. Wash thoroughly after handling.  Bags on pallets, shrink wrapped in polyethylene: The removal of the polyethylene foil may cause an electrostatic charge; therefore the removal should not be carried out in the vicinity of inflammable vapors.

<b>Pigment Ink</b>	<b>TN-5</b>	<b>Tahitian Brown</b>	<b>3</b>
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#### 43. Shipping Information

<b>D.O.T. Shipping Name:</b>	None
<b>Technical Shipping Name:</b>	Inorganic Oxide

D.O.T. Hazard Class:

Non-Regulated

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#### 44. Animal Toxicity Data

Acute Toxicity:

Oral LD50: Greater than 500 mg/kg (Rat). (1)

Dermal LD50: Data not established for product.

Inhalation LC50: Data not established for product.

Eye Effects: Non-irritating to rabbit eyes. (1)

Skin Effects: Non-irritating to rabbit skin (24 hrs.) (1)

Sensitization: Data not established for product.

Chronic Toxicity: Data not established for product.

Aquatic Toxicity Data: LCo: Greater than 1000 mg/1 Golden orfe (*Leuciscus idus*). (1)

1 Toxicological tests performed on chemically identical products.

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#### 45. Federal Regulatory Information

OSHA Status: This product is non-hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

HMIS Ratings: Health=0 Flammability=0 Reactivity=0

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#### 46. Other Information

Issue Date: 12/20/96





# Material Safety Data Sheet

Pigment Ink

TN-12

Whitest White

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## 47. Product and Company Identification

Product Name:	Pigment Ink
Product Code:	TN-12
Company:	A Permanent Solution 1038 E. Bastanchury Road #186 Fullerton, CA 92835 USA www.apermanentsolution.com E-mail: info@apermanentsolution.com Phone: (714) 441-1900 Fax: (714) 441-1808

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## 48. Hazards Identification

Physical State:	Solid.
OSHA/HCS Status:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency Overview:	No specific hazard. <b>MAY CAUSE SKIN AND EYE IRRITATION.</b> Slightly irritating to the eyes and skin. Avoid exposure-obtain special instructions before use. Do not breathe vapor or mist. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.
Potential acute health effects:	
Eyes:	Slightly irritating to the eyes. This product may irritate eyes upon contact.
Skin:	Slightly irritating to the skin.
Inhalation:	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Ingestion:	No known significant effects or critical hazards.
Other special considerations:	Titanium dioxide has been characterized by IARC as possible carcinogenic to humans (Group 2B) through inhalation (not ingestion). This classification is based upon animal inhalation studies. Epidemiology studies do not suggest as increased risk of cancer in humans from occupational exposure to titanium dioxide.

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Pigment Ink

TN-12

Whitest White

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## 49. Composition/Information on Ingredients

Titanium Dioxide C.A.S # 13463-67-7

Amorphous Silicia C.A.S. # 7631-86-9

Aluminum Hydroxide C.A.S. # 21645-51-2

There are no additional ingredients which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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## 50. First Aid Measures

Eye Contact:	Remove contact lenses if present. Thoroughly flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact:	Wash skin with soap and water. Get medical attention if irritation develops.
Inhalation:	Move to fresh air. Get medical attention if irregular breathing occurs.
Ingestion:	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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## 51. Fire-Fighting Measures

Products of combustion:	Decomposition products may include the following materials: metal oxide(s).
Fire-Fighting media and Instructions:	Use an extinguishing agent for the surrounding fire.
Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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## 52. Accidental Release Measures

Personal Precautions:	Keep unnecessary personnel away. Provide adequate ventilation. Use suitable protective equipment (section 8).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods for Cleaning Up:	If emergency personnel are unavailable, carefully scoop up spilled materials and use a non-sparking or explosion-proof means to transfer material to an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

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Pigment Ink

TN-12

Whitest White

2

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## 53. Handling and Storage

<b>Handling:</b>	Do not get in eyes or on skin or clothing. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Avoid breathing dust.
<b>Storage:</b>	Keep container tightly closed. Store in a dry, cool and well-ventilated area. Store away from incompatible materials. Store in accordance with local regulations.

## 54. Exposure Controls/Personal Protection

<b>Engineering Measures:</b>	If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory levels.	
<b>Particle Size Considerations:</b>	titanium dioxide: Fine particles are respirable particles with a primary particle diameter of at least 100 nm. Ultrafine particles are respirable particles with a primary particle diameter of less than 100 nm. The grade of titanium dioxide used as a component in this product is not manufactured to contain ultrafine particles as defined above.	
<b>Environmental Exposure Controls:</b>	Emissions from ventilation or work process equipment should be checked to ensure they comply with requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.	
<b><u>Personal Protection:</u></b>		
<b>Eyes:</b>	Safety glasses should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.	
<b>Skin:</b>	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.	
<b>Respiratory:</b>	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.	
<b>Hands:</b>	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.	
<b>Exposure Limits:</b>	Titanium Dioxide	OSHA PEL (United States, 6/2010). TWA: 15 mg/m <sup>3</sup> 8 hour(s). Form: Total dust OSHA PEL 1989 (United States, 3/1989). TWA: 10 mg/m <sup>3</sup> 8 hour(s). Form: Total dust ACGIH TLV (United States, 1/2011). TWA: 10 mg/m <sup>3</sup> 8 hour(s).
	Amorphous Silica	NIOSH REL (United States, 6/2009). TWA: 6 mg/m <sup>3</sup> 10 hour(s).
	Titanium Dioxide	OSHA PEL 1989 (United States, 3/1989). TWA: 2 mg/m <sup>3</sup> , (as Al) 8 hour(s). NIOSH REL (United States, 6/2009). TWA: 2 mg/m <sup>3</sup> , (as Al) 10 hour(s).

Pigment Ink

TN-12

Whitest White

3

## 55. Physical and Chemical Properties

<b>Physical State:</b>	Solid
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Appearance: White Powder  
Flash Point: Closed cup: 500°C (932°F)

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## 56. Stability and Reactivity

Stability: The product is stable.  
Hazardous Polymerization: Will not occur.  
Hazardous Decomposition Products: Under normal conditions of storage and use, hazardous decomposition should not be produced.

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## 57. Toxicological Information

Chronic Effects: Titanium Dioxide ACGIH = A4 IARC = 2B NIOSH = +  
Amorphous Silica IARC = 3  
Titanium Dioxide has been characterized by IARC as possible carcinogenic to humans (Group 2B) through inhalation (not ingestion). This classification is based upon animal inhalation studies. Epidemiology studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide. It has not been characterized as a potential carcinogen by either NTP or OSHA. Additionally, the Joint Evaluation Committee on Food Additives (JECFA) has reviewed the safety of titanium dioxide finding no problems for its use in food applications and establishing an acceptable daily intake (ADI) for safe use.

Slightly irritating to the eyes and skin. Avoid exposure-obtain special instructions before use. Do not breathe vapor or mist. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

Mutagenicity/Teratogenicity: No known significant effects or critical hazards.  
Reproductive Toxicity: No known significant effects or critical hazards.

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## 58. Ecological Information

Environmental Effects: No known significant effects or hazards.  
Aquatic Ecotoxicity: Slightly toxic to aquatic life.

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Pigment Ink                      TN-12                      Whitest White                      4

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## 59. Disposal Considerations

Waste Disposal: The generation of waste should be avoided or minimized whenever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal

contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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## 60. Transport Information

DOT Classification: Refer to the bill of lading for proper shipping information.

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## 61. Regulatory Information

OSHA/HCS Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
WHMIS (Canada): Class D-2A: Material causing other toxic effects.  
Europe: This product is not classified according to EU legislation.

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## 62. Other Information

### Hazardous Materials Information System (USA):

Health: 1  
Flammability: 0  
Physical Hazards: 0  
Personal Protection: B

### National Fire Protection Association (USA):

Health: 1  
Flammability: 0  
Instability: 0

Date of Revision: May 31, 2012



# Material Safety Data Sheet

Pigment Ink

TN-24

Red Velvet

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## 63. Product and Company Identification

Product Name:	Pigment Ink
Product Code:	TN-24
Company:	A Permanent Solution 1038 E. Bastanchury Road #186 Fullerton, CA 92835 USA www.apermanentsolution.com E-mail: info@apermanentsolution.com Phone: (714) 441-1900 Fax: (714) 441-1808

## 64. Hazards Identification

Physical State:	Solid.
OSHA/HCS Status:	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of the product.
Emergency Overview:	No specific hazard. <b>NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.</b> No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.
Potential acute health effects:	
Eyes:	This product may irritate eyes upon contact.
Skin:	No known significant effects or critical hazards.
Inhalation:	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion:	No known significant effects or critical hazards.

Pigment Ink

TN-24

Red Velvet

1

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## 65. Composition/Information on Ingredients

There are no additional ingredients which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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## 66. First Aid Measures

Eye Contact:	Remove contact lenses if present. Thoroughly flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact:	Wash skin with soap and water. Get medical attention if irritation develops.
Inhalation:	Move to fresh air. Get medical attention if irregular breathing occurs.
Ingestion:	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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## 67. Fire-Fighting Measures

Products of combustion:	Decomposition products may include the following materials: Carbon dioxide, carbon monoxide, nitrogen oxides, halogenated compounds
Fire-Fighting media and Instructions:	Use an extinguishing agent for the surrounding fire.
Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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## 68. Accidental Release Measures

Personal Precautions:	Keep unnecessary personnel away. Provide adequate ventilation. Use suitable protective equipment (section 8).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods for Cleaning Up:	If emergency personnel are unavailable, carefully scoop up spilled materials and use a non-sparking or explosion-proof means to transfer material to an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

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## 69. Handling and Storage

Handling:	Avoid breathing dust.
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Pigment Ink	TN-24	Red Velvet	2
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Storage:	Keep container tightly closed. Store in a dry, cool and well-ventilated area. Store away from incompatible materials. Store in accordance with local regulations.
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## 70. Exposure Controls/Personal Protection

Engineering Measures:	No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosure, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
Environmental Exposure Controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Personal Protection:	Safety glasses should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

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## 71. Physical and Chemical Properties

Physical State:	Solid
Appearance:	Red Powder
Flash Point:	Closed cup: 500°C (932°F)

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## 72. Stability and Reactivity

Stability:	The product is stable.
Hazardous Polymerization:	Will not occur.
Hazardous Decomposition Products:	Under normal conditions of storage and use, hazardous decomposition should not be produced.

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## 73. Toxicological Information

Chronic Effects:	No known significant effects or critical hazards.
Mutagenicity/Teratogenicity:	No known significant effects or critical hazards.

<b>Pigment Ink</b>	<b>TN-24</b>	<b>Red Velvet</b>	<b>3</b>
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Reproductive Toxicity:	No known significant effects or critical hazards.
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## 74. Ecological Information

Environmental Effects:	No known significant effects or hazards.
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## 75. Disposal Considerations

**Waste Disposal:**

The generation of waste should be avoided or minimized whenever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers..

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## 76. Transport Information

**DOT Classification:**

Refer to the bill of lading for proper shipping information.

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## 77. Regulatory Information

**OSHA/HCS Status:**

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

**WHMIS (Canada):**

Not controlled under WHMIS (Canada).

**Europe:**

This product is not classified according to EU legislation.

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## 78. Other Information

**Hazardous Materials Information System (USA):**

**Health:** 1  
**Flammability:** 1  
**Physical Hazards:** 0  
**Personal Protection:** B

**Pigment Ink**

**TN-24**

**Red Velvet**

**4**

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**National Fire Protection Association (USA):**

**Health:** 1  
**Flammability:** 1  
**Instability:** 0

**Date of Revision:**

**May 31, 2012**





# Material Safety Data Sheet

Pigment Ink

TN-28

Navel Orange

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## 79. Product and Company Identification

Product Name:	Pigment Ink
Product Code:	TN-28
Company:	A Permanent Solution 1038 E. Bastanchury Road #186 Fullerton, CA 92835 USA www.apermanentsolution.com E-mail: info@apermanentsolution.com Phone: (714) 441-1900 Fax: (714) 441-1808

## 80. Hazards Identification

Emergency Overview:	When involved in a fire or exposed to high temperatures for an extended period of time, organic pigments may smolder or burn evolving noxious fumes which can include oxides of nitrogen and carbon, or other toxic compounds.
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## 81. Composition/Information on Ingredients

Pigment Orange 13 C.A.S # 3520-72-7  
This product is not considered to be a hazardous substance as defined under OSHA's Hazard Communication Standard (29 CFR 1910.1200).

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## 82. First Aid Measures

Eye Contact:	Remove contact lenses if present. Thoroughly flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact:	Wash skin with soap and water. Get medical attention if irritation develops.
Inhalation:	Move to fresh air. Get medical attention if irregular breathing occurs.
Ingestion:	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Pigment Ink

TN-28

Navel Orange

1

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### 83. Fire-Fighting Measures

Flammability of product:	Non-flammable organic pigment product.
Fire-Fighting media and Instructions:	Carbon dioxide, dry chemical or foam recommended. Apply water spray to cool exposed closed containers.
Special protective equipment for fire-fighters:	Self-contained breathing apparatus (SCBA) and full protective equipment recommended.
Unusual fire and explosion hazards:	Fire or excessive heat may produce hazardous decomposition products.
General Hazard:	Improper handling of any finely divided organic pigment powder may lead to dust cloud formation which may be an explosion hazard.
NFPA Ratings:	Health: 1      Flammability: 1      Reactivity: 0
HMIS Ratings:	Health: 1      Flammability: 1      Reactivity: 0

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### 84. Accidental Release Measures

Small Spill:	For dry powder spills, inert materials such as sand may be added to control dusting prior to cleanup. Industrial grade vacuum sweepers are also recommended. Place spilled material into appropriate waste containers for disposal.
Large Spill:	Contain spilled material immediately with an inert substance such as sand or earth. Use plastic or aluminum shovel to transfer diluted waste material into appropriate containers for disposal.  Airborne organic pigment dust may be an explosion hazard. Secure possible sources of ignition and avoid dusting.

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### 85. Handling and Storage

Handling:	Avoid employee exposure through the use of appropriate engineering controls and good industrial hygiene practices.
Storage:	Store in a moderately cool, dry, well-ventilated area away from direct sources of heat. Empty containers may contain product residues and should be handled appropriately. Position containers so that any labeling information is visible.

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### 86. Exposure Controls/Personal Protection

Engineering Measures:	The use of local exhaust ventilation is recommended.
Personal Protection:	NIOSH approved dust respirators are recommended when handling in areas

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Pigment Ink	TN-28	Navel Orange	2
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Exposure Limits:	of pigment dusting. Safety glasses are also recommended. Impervious clothing should be worn when gross contact is likely, such as when cleaning up spills of large amounts. There are no ACGIH TLV's or OSHA PEL's established for this product.
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## 87. Physical and Chemical Properties

Physical State:	Solid
Appearance:	Reddish Orange Powder
Melting Point:	320°C - 330°C

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## 88. Stability and Reactivity

Stability:	The product is stable.
Hazardous Polymerization:	Hazardous polymerization will not occur.
Incompatibility:	Avoid strong oxidizing agents such as peroxides, chlorates, perchlorates, nitrates, and permanganates. Oxidizing materials may vigorously evolve oxygen in large amounts.
Hazardous Decomposition Products:	When involved in a fire, burning organic pigments may evolve noxious gases which are toxic. These compounds may include carbon monoxide, carbon dioxide, nitrous oxides, or hydrogen chlorides, depending on the pigment type.

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## 89. Toxicological Information

General:	Bases upon industry-wide experience over many years of manufacturing and published toxicological studies, organic pigments in general are considered to be practically non-toxic. This low order of toxicity is probably due to the fact that pigments are somewhat inert and insoluble substances.
Acute Toxicity:	This product has a reported acute oral LD <sub>50</sub> value of 5 gm/kg or greater in rats. No irritation observed in cutaneous and mucosal tolerability.
Chronic Toxicity:	No damage to animals observed in unpublished sub-chronic feeding studies in rats.
Mutagenicity:	In vitro screening tests for mutagenicity had reported negative results in Ames Salmonella culture with DMSO solutions or dispersions of commercial pigments.

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## 90. Ecological Information

This product has not been evaluated for its ecotoxicity. However, the biodegradation of organic colorants under aerobic conditions is expected to be poor and there is no evidence to suggest they create any significant ecological

problems when released into the environment. Since organic pigments are generally insoluble compounds, they are believed to have minimal bioaccumulation and bioavailability characteristics.

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## 91. Disposal Considerations

Waste Disposal:

Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

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## 92. Transport Information

DOT Classification:

Refer to the bill of lading for proper shipping information.

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## 93. Regulatory Information

OSHA/HCS Status:

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

WHMIS (Canada):

Not controlled under WHMIS (Canada).

Europe:

This product is not classified according to EU legislation.

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## 94. Other Information

Date of Revision:

May 31, 1996



# Material Safety Data Sheet

Pigment Ink

TN-32

Petal Pink

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## 95. Product and Company Identification

Product Name: Pigment Ink  
Product Code: TN-32  
Company: A Permanent Solution  
1038 E. Bastanchury Road #186  
Fullerton, CA 92835 USA  
www.apermanentsolution.com E-mail: info@apermanentsolution.com  
Phone: (714) 441-1900 Fax: (714) 441-1808

## 96. Hazards Identification

Physical State: Solid.  
OSHA/HCS Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
Emergency Overview: No specific hazard.  
MAY CAUSE EYE AND SKIN IRRITATION.  
Potential acute health effects:  
Eyes: Slightly irritating to the eyes. This product may irritate eyes upon contact.  
Skin: Slightly irritating to the skin.  
Inhalation: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.  
Ingestion: No known significant effects or critical hazards are associated with ingestion.  
Other Special Considerations: Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation (not ingestion). This classification is based upon animal inhalation studies. Epidemiology studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide.

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## 97. Composition/Information on Ingredients

Titanium Dioxide C.A.S. # 13463-67-7  
Amorphous Silica C.A.S. # 7631-86-9

Pigment Ink

TN-32

Petal Pink

1

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Aluminum Hydroxide C.A.S # 21645-51-2

There are no additional ingredients which, within the current knowledge of the supplier and in the concentrations

applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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## 98. First Aid Measures

Eye Contact:	Remove contact lenses if present. Thoroughly flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact:	Wash skin with soap and water. Get medical attention if irritation develops.
Inhalation:	Move to fresh air. Get medical attention if irregular breathing occurs.
Ingestion:	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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## 99. Fire-Fighting Measures

Products of Combustion:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, halogenated compounds metal oxide(s)
Fire-Fighting media and Instructions:	Use an extinguishing agent for the surrounding fire.
Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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## 100. Accidental Release Measures

Personal Precautions:	Keep unnecessary personnel away. Provide adequate ventilation. Use suitable protective equipment (section 8).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods for Cleaning Up:	If emergency personnel are unavailable, carefully scoop up spilled materials and use a non-sparking or explosion proof means to transfer to an appropriated container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

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## 101. Handling and Storage

Handling:	Do not get in eyes or on skin or clothing. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Avoid breathing dust.
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Pigment Ink

TN-32

Petal Pink

2

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Storage:	Keep container tightly closed. Store in a dry, cool and well-ventilated area. Store in accordance with local regulations.
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## 102. Exposure Controls/Personal Protection

Engineering Measures:	If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below recommended or statutory limits.	
Particle Size Considerations:	titanium dioxide: Fine particles respirable particles with a primary particle diameter of at least 100 nm. Ultrafine particles are respirable particles with a primary particle diameter of less than 100 nm. The grade of titanium dioxide used as a component in this product is not manufactured to contain ultrafine particles as defined above.	
Personal Protection:		
Eyes:	Safety glasses are recommended.	
Skin:	Protective clothing should be worn during gross contact.	
Respiratory:	A properly fitted, air-purifying or air-fed respiration may be worn if a risk assessment indicates this is necessary.	
Hands:	Chemical-resistant, impervious gloves should be worn if a risk assessment indicates this is necessary.	
Exposure Limits:	Titanium Dioxide	OSHA PEL (United States, 6/2010). TWA: 15 mg/m <sup>3</sup> 8 hour(s). Form: Total dust OSHA PEL 1989 (United States, 3/1989). TWA: 10 mg/m <sup>3</sup> 8 hour(s). Form: Total dust ACGIH TLV (United States, 1/2011). TWA: 10 mg/m <sup>3</sup> 8 hour(s).
	AMORPHOUS SILICIA	NIOSH REL (United States, 6/2009). TWA: 6 mg/m <sup>3</sup> 10 hour(s).
	ALUMINUM HYDROXIDE	OSHA PEL 1989 (United States, /1989). TWA: 2 mg/m <sup>3</sup> (as Al) 8 hour(s). NIOSH REL (United States, 6/2009). TWA: 2 mg/m <sup>3</sup> (as Al) 10 hour(s).

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## 103. Physical and Chemical Properties

Physical State:	Solid
Appearance:	Pink Powder
Flash Point:	Closed cup: 500°C (932°F)

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## 104. Stability and Reactivity

Stability:	The product is stable.
Hazardous Polymerization:	Will not occur.
Hazardous Decomposition Products:	Under normal conditions of storage and use, hazardous decomposition should not be produced.

Pigment Ink

TN-32

Petal Pink

3

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## 105. Toxicological Information

Chronic Effects:	Titanium Dioxide Amorphous Silica	ACGIH = A4 IARC = 3	IARC = 2B	NIOSH = +
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**Additional Information:** Titanium Dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation (not ingestion). This classification is based upon animal inhalation studies. Epidemiology studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium oxide. It has not been characterized as a potential carcinogen by either NTP or OSHA. Additionally, the Joint Evaluation Committee on Food Additives (JECFA) has reviewed the safety of titanium dioxide finding no problems for its use in food applications and establishing an acceptable daily intake (ADI) for safe use.

**Mutagenicity/Teratogenicity:** No known significant effects or critical hazards.

**Reproductive Toxicity:** No known significant effects or critical hazards.

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## 106. Ecological Information

**Environmental Effects:** No known significant effects or hazards.

**Aquatic Ecotoxicity:** Only slightly toxic to aquatic life.

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## 107. Disposal Considerations

**Waste Disposal:** The generation of waste should be avoided or minimized whenever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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## 108. Transport Information

**DOT Classification:** Refer to the bill of lading for proper shipping information.

<b>Pigment Ink</b>	<b>TN-32</b>	<b>Petal Pink</b>	<b>4</b>
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## 109. Regulatory Information

**OSHA/HCS Status:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**WHMIS (Canada):** Class D-2A: Material causing other toxic effects.

Europe:

This product is not classified according to EU legislation.

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## 110. Other Information

### Hazardous Materials Information System (USA):

Health:	1
Flammability:	1
Physical Hazards:	0
Personal Protection:	B

### National Fire Protection Association (USA):

Health:	1
Flammability:	1
Instability:	0

Date of Revision:	May 31, 2012
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# Material Safety Data Sheet

Pigment Ink

TN-34

Burgundy

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## 111. Product and Company Identification

Product Name: Pigment Ink  
Product Code: TN-34  
Company: A Permanent Solution  
1038 E. Bastanchury Road #186  
Fullerton, CA 92835 USA  
www.apermanentsolution.com E-mail: info@apermanentsolution.com  
Phone: (714) 441-1900 Fax: (714) 441-1808

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## 112. Hazards Identification

Emergency Overview: When involved in a fire or exposed to high temperatures for an extended period of time, organic pigments may smolder or burn evolving noxious fumes which can include oxides of nitrogen and carbon, or other toxic compounds.

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## 113. Composition/Information on Ingredients

Pigment Red 122 (Magenta) C.A.S # 980-26-7  
This product is not considered to be a hazardous substance as defined under OSHA's Hazard Communication Standard (29 CFR 1910.1200).

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## 114. First Aid Measures

Eye Contact: Remove contact lenses if present. Thoroughly flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.  
Skin Contact: Wash skin with soap and water. Get medical attention if irritation develops.  
Inhalation: Move to fresh air. Get medical attention if irregular breathing occurs.

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Pigment Ink

TN-34

Burgundy

1

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Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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### 115. Fire-Fighting Measures

Flammability of product:	Non-flammable organic pigment product.		
Fire-Fighting media and Instructions:	Carbon dioxide, dry chemical or foam recommended. Apply water spray to cool exposed closed containers.		
Special protective equipment for fire-fighters:	Self-contained breathing apparatus (SCBA) and full protective equipment recommended.		
Unusual fire and explosion hazards:	Fire or excessive heat may produce hazardous decomposition products.		
General Hazard:	Improper handling of any finely divided organic pigment powder may lead to dust cloud formation which may be an explosion hazard.		
NFPA Ratings:	Health: 1	Flammability: 1	Reactivity: 0
HMIS Ratings:	Health: 1	Flammability: 1	Reactivity: 0

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### 116. Accidental Release Measures

Small Spill:	For dry powder spills, inert materials such as sand may be added to control dusting prior to cleanup. Industrial grade vacuum sweepers are also recommended. Place spilled material into appropriate waste containers for disposal.
Large Spill:	Contain spilled material immediately with an inert substance such as sand or earth. Use plastic or aluminum shovel to transfer diluted waste material into appropriate containers for disposal.
	Airborne organic pigment dust may be an explosion hazard. Secure possible sources of ignition and avoid dusting.

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### 117. Handling and Storage

Handling:	Avoid employee exposure through the use of appropriate engineering controls and good industrial hygiene practices.
Storage:	Store in a moderately cool, dry, well-ventilated area away from direct sources of heat. Empty containers may contain product residues and should be handled appropriately. Position containers so that any labeling information is visible.

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Pigment Ink	TN-34	Burgundy	2
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### 118. Exposure Controls/Personal Protection

Engineering Measures:	The use of local exhaust ventilation is recommended.
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**Personal Protection:** NIOSH approved dust respirators are recommended when handling in areas of pigment dusting. Safety glasses are also recommended. Impervious clothing should be worn when gross contact is likely, such as when cleaning up spills of large amounts.

**Exposure Limits:** There are no ACGIH TLV's or OSHA PEL's established for this product.

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## 119. Physical and Chemical Properties

**Physical State:** Solid  
**Appearance:** Bluish Red Powder  
**Melting Point:** No Data

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## 120. Stability and Reactivity

**Stability:** The product is stable.  
**Hazardous Polymerization:** Hazardous polymerization will not occur.  
**Incompatibility:** Avoid strong oxidizing agents such as peroxides, chlorates, perchlorates, nitrates, and permanganates. Oxidizing materials may vigorously evolve oxygen in large amounts.  
**Hazardous Decomposition Products:** When involved in a fire, burning organic pigments may evolve noxious gases which are toxic. These compounds may include carbon monoxide, carbon dioxide, nitrous oxides, or hydrogen chlorides, depending on the pigment type.

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## 121. Toxicological Information

**General:** Bases upon industry-wide experience over many years of manufacturing and published toxicological studies, organic pigments in general are considered to be practically non-toxic. This low order of toxicity is probably due to the fact that pigments are somewhat inert and insoluble substances.  
**Acute Toxicity:** No known published data available.  
**Chronic Toxicity:** No known published data available.  
**Mutagenicity:** No known published data available.

Pigment Ink                      TN-34                      Burgundy                      3

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## 122. Ecological Information

This product has not been evaluated for its ecotoxicity. However, the biodegradation of organic colorants under aerobic conditions is expected to be poor and there is no evidence to suggest they create any significant ecological

problems when released into the environment. Since organic pigments are generally insoluble compounds, they are believed to have minimal bioaccumulation and bioavailability characteristics.

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### 123. Disposal Considerations

**Waste Disposal:** Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

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### 124. Transport Information

**DOT Classification:** Refer to the bill of lading for proper shipping information.

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### 125. Regulatory Information

**OSHA/HCS Status:** While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

**WHMIS (Canada):** Not controlled under WHMIS (Canada).

**Europe:** This product is not classified according to EU legislation.

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### 126. Other Information

**Date of Revision:** May 31, 1996



# Material Safety Data Sheet

Pigment Ink                      TN-35                      Flesh Brown

## 127. Product and Company Identification

Product Name: Pigment Ink  
 Product Code: TN-35  
 Company: A Permanent Solution  
 1038 E. Bastanchury Road #186  
 Fullerton, CA 92835 USA  
 www.apermanentsolution.com    E-mail: info@apermanentsolution.com  
 Phone: (714) 441-1900              Fax: (714) 441-1808

## 128. Hazards Identification

Hazardous Ingredients:                      None

## 129. Physical Data

Appearance: Solid Powder  
 Color: Red  
 Odor: Odorless  
 Melt Point/Freeze Point: Greater than 1832°F (1000°C)  
 Boiling Point: Not Established  
 Vapor Pressure: Not Applicable  
 pH: Approx. 4-8 at 50 g/l H<sub>2</sub>O in aqueous suspension; DIN 787/9  
 Specific Gravity: Approx. 5 @ 68 F (20 C); DIN 787-10  
 Solubility in Water: Insoluble  
 Bulk Density: 600-1000 kg/m<sup>3</sup> at 68 F (20 C)

## 130. Fire and Explosion Data

Flash Point: Not Applicable  
 Flammable Limits: Lel-Not Applicable                      Uel-Not Applicable

Pigment Ink                      TN-35                      Flesh Brown                      1

Extinguishing Media: Material is not combustible. Use extinguishing agents that are suitable to the surrounding fire.  
 Special Fire Fighting Procedures/  
 Unusual Fire or Explosion Hazards: None



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### 131. Human Health Data

**Primary Route(s) of Exposure:** Eye Contact, Skin Contact, Inhalation

**Human Effects and Symptoms of Overexposure:**

**Acute:** On the basis of Animal toxicity data (see section XII), we would expect this product to be non-irritating to the eyes and skin and essentially non-toxic by ingestion. However, excessive exposure to airborne dust may reduce visibility and/or cause unpleasant deposits in the eyes, ears and nose. Injury to the skin or mucous membranes can occur by direct mechanical action or by rigorous skin cleansing necessary for removal of dust.

**Chronic:** Not Known.

**Other:** Prolonged inhalation (6-10 years) of iron oxide fume has been reported to produce changes in lung x-rays of exposed individuals. This condition, siderosis, is considered to be a benign pneumoconiosis that exhibits no adverse health effects. Siderosis has been observed among occupations such as arc-welders where iron oxide fumes are present. To the best of our knowledge, this condition has not been observed after prolonged exposure to iron oxide pigments.

**Medical Conditions Aggravated By Exposure:** None Known

**Carcinogenicity:** NTP: Not Listed  
IARC: Not Listed  
OSHA: Not Listed  
Other: IARC and NTP both contain listings for underground hematite mining. These listings are for the occupational exposures associated with the mining process which include radon, a known lung carcinogen. NIOSH in the Registry of Toxic Effects of Chemical Substances (RTECS) lists iron oxide as a suspect human carcinogen. However, the IARC reference to underground hematite mining is the source for this classification. Based on information currently available this product is not considered a carcinogen.

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### 132. Emergency & First Aid Procedures

**Eye Contact:** Flush eyes with plenty of water, lifting lids periodically for at least 15 minutes. Consult a physician if irritation persists.

**Skin Contact:** Wash with soap and water.

**Inhalation:** Remove from dusty area to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Ingestion:** Immediately contact a physician.

Pigment Ink

TN-35

Flesh Brown

2

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### 133. Employee Protection Recommendations

**Eye Protection:** Safety glasses.

**Skin Protection:** Rubber, cloth or plastic gloves if appropriate for job conditions.

**Respiratory Protection:** Work ambient concentrations should be monitored and if the recommended exposure limit is exceeded, a NIOSH/MSHA approved dust respirator should be worn. Do not exceed use limits of the respirator.

**Ventilation:** Use local ventilation to maintain air levels below the recommended exposure limit if dusting is a problem.

**Other:** Eye wash stations and washing facilities should be available. Employees should wash their hands and face before eating, drinking or using tobacco products.

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### 134. Reactivity Data

**Stability:** This is a stable material.

**Polymerization:** Will not occur.

**Incompatibilities:** None Known.

**Instability Conditions:** None Known.

**Decomposition Temperature:** Not Established.

**Decomposition Products:** None Known.

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### 135. Spill or Leak Procedures

Steps to be taken in case material is released or spilled: Vacuum or scoop material into an appropriately marked container for reclamation or disposal. Avoid excessive generation of dust. If dust is generated, use appropriate respiratory protection.

Waste disposal method: Material which cannot be recycled into your process should be landfilled in accordance with federal, state and local environmental control regulations.

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### 136. Special Precautions and Storage Data

**Storage Temperature (min./max.):** Ambient/Ambient

**Average Shelf Life:** Unlimited

**Special Sensitivity:** None Known

**Handling & Storage:** Store dry at ambient temperature away from food and beverages. Avoid breathing dust. Avoid contact with eyes and skin. Wash thoroughly after handling.

Bags on pallets, shrink wrapped in polyethylene: The removal of the polyethylene foil may cause an electrostatic charge; therefore the removal should not be carried out in the vicinity of inflammable vapors.

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Pigment Ink

TN-35

Flesh Brown

3

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### 137. Shipping Information

**D.O.T. Shipping Name:** None

**Technical Shipping Name:** Inorganic Oxide

D.O.T. Hazard Class:

Non-Regulated

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### 138. Animal Toxicity Data

Acute Toxicity:

Oral LD50: Greater than 500 mg/kg (Rat). (1)

Dermal LD50: Data not established for product.

Inhalation LC50: Data not established for product.

Eye Effects: Non-irritating to rabbit eyes. (1)

Skin Effects: Non-irritating to rabbit skin (24 hrs.) (1)

Sensitization: Data not established for product.

Chronic Toxicity: Data not established for product.

Aquatic Toxicity Data: LCo: Greater than 1000 mg/1 Golden orfe (*Leuciscus idus*). (1)

1 Toxicological tests performed on chemically identical products.

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### 139. Federal Regulatory Information

OSHA Status: This product is non-hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

HMIS Ratings: Health=0 Flammability=0 Reactivity=0

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### 140. Other Information

Issue Date: 12/20/96