



Preparation Date 12-Apr-2017

Revision Date 12-Apr-2017

Revision Number 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product Identifier

Product Description	170T64986 JM RAL 2011 ORANGE (MS-2900-4 WO-1 ORANGE)
Product Identifier	3.560.3.064986
Product Class	Solvent Based Fluid Ink

### Other means of identification

UN number 1210

### Recommended use of the chemical and restrictions on use

Intended Use	Printing Ink.
Uses advised against	No information available

### Details of the supplier of the safety data sheet

**Supplier Address**  
 Millennium Signatures  
 1550-12 Yorkton Crt.  
 Burlington, ON L7P 5B7

E-mail address	info@millenniumsignatures.com
Company Phone Number	905-639-0909

### Emergency telephone number

For Transportation Emergencies within the U.S. Call CHEMTREC (800) 424-9300  
For Canadian Transportation Emergencies Call CANUTEC (613) 996-6666

## 2. HAZARDS IDENTIFICATION

### Classification

### OSHA Regulatory status

Acute Toxicity - Oral	Category 4
Serious eye damage/eye irritation	Category 2
Specific target organ toxicity (single exposure)	Category 2
Flammable liquids	Category 2

### Label elements

#### Emergency Overview

#### Danger

#### Hazard Statements

Harmful if swallowed  
 Causes serious eye irritation  
 May cause damage to organs  
 Highly flammable liquid and vapor

**Appearance** Product Specific**Physical state** Liquid**Odor** Characteristic**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
 Keep container tightly closed  
 Ground/bond container and receiving equipment  
 Use explosion-proof electrical/ventilating/lighting/equipment  
 Use only non-sparking tools  
 Take precautionary measures against static discharge  
 Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth

**Precautionary Statements - Storage**

Store locked up  
 Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other information**

- May be harmful in contact with skin

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %	Trade Secret
Propylene Glycol Methyl Ether	107-98-2	1 - 5	*
Propyl Acetate	109-60-4	10 - 25	*
Titanium dioxide	13463-67-7	5 - 10	*
Methanol	67-56-1	5 - 10	*
n-Propyl alcohol	71-23-8	1 - 5	*
Nitrocellulose	9004-70-0	1 - 5	*

\* The exact percentage (concentration) of composition has been withheld as a trade secret

### 4. FIRST AID MEASURES

**First Aid Measures**

<b>General advice</b>	If symptoms persist, call a physician. Do not get in eyes, on skin, or on clothing. Show this safety data sheet to the doctor in attendance.
<b>Eye contact</b>	If eye irritation persists, consult a specialist. Call a physician immediately. Immediately flush eyes with large quantities of clean water for at least 15 minutes.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if symptoms occur.
<b>Inhalation</b>	If breathing is difficult, give oxygen. Move to fresh air in case of accidental inhalation of vapours. Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing.
<b>Ingestion</b>	Immediate medical attention is required.

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Repeated exposure may cause skin dryness or cracking. If large quantities are ingested, CNS depression will result leading to serious health consequences including possible death. Drowsiness. Dizziness.
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**Indication of any immediate medical attention and special treatment needed**

<b>Notes to physician</b>	Treat symptomatically.
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**5. FIRE-FIGHTING MEASURES****Extinguishing media**

Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. If one of the following is listed in Section 3 (Copper, Zinc, or Aluminum) then water, CO<sub>2</sub>, foam and ABC powder are not suitable extinguishing media. .

**Special hazards arising from the substance or mixture**

Extremely flammable. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Thermal decomposition can lead to release of irritating gases and vapors. If product contains nitrocellulose, oxygen may be released resulting in difficulty in fire fighting.

**Explosion Data**

**Sensitivity to mechanical impact** No.  
**Sensitivity to static discharge** Yes.

**Advice for firefighters**

Wear self-contained breathing apparatus and protective suit. Wear fire/flame resistant/retardant clothing.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Take precautionary measures against static discharges. Pay attention to flashback.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

**Methods and material for containment and cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Prevent product from entering drains. Sweep up and shovel into suitable containers for disposal. Take precautionary measures against static discharges. Use

non-sparking tools.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

Wear personal protective equipment. Handle in accordance with good industrial hygiene and safety practice. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Ensure all equipment is electrically grounded before beginning transfer operations.

### Conditions for safe storage, including any incompatibilities

Keep away from open flames, hot surfaces and sources of ignition. Keep in properly labeled containers.

**Incompatible materials** Incompatible with strong acids and bases.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

### Exposure guidelines

If this product contains any hazardous materials with occupational exposure limits established by the region specific regulatory bodies, the information is shown directly below this statement.

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Propylene Glycol Methyl Ether 107-98-2	TWA: 50 ppm STEL: 100 ppm		
Propyl Acetate 109-60-4	TWA: 200 ppm STEL: 250 ppm	TWA: 200 ppm TWA: 840 mg/m <sup>3</sup>	1700 ppm
Methanol 67-56-1	TWA: 200 ppm Skin STEL: 250 ppm	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	6000 ppm
n-Propyl alcohol 71-23-8	TWA: 100 ppm	TWA: 200 ppm TWA: 500 mg/m <sup>3</sup>	800 ppm

### Appropriate engineering controls

**Engineering controls** Ensure adequate ventilation, especially in confined areas. Explosion proof ventilation and electrical systems should be present and in use.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Safety glasses with side-shields

**Skin and body protection** Protective gloves.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General industrial hygiene practice** Handle in accordance with good industrial hygiene and safety practice. Wear suitable gloves and eye/face protection. Wear appropriate respirator when working with solvents above the exposure limits.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Appearance</b>	Product Specific
<b>Odor</b>	Characteristic
<b>Color</b>	No information available
<b>Odor Threshold</b>	No information available
<b>PH</b>	Not applicable

Melting point/freezing point	Not available
Boiling Point/Range	78-121 °C
Flash point	< 22 °C
Method	Calculated
Evaporation rate	No information available
Flammability Limit in Air	
Upper flammability limit:	19
Lower flammability limit:	1.1
Vapor pressure	No information available
Vapor density	Not available
Specific Gravity	0.9165
Water solubility	Insoluble
Solubility in other solvents	No information available
Partition coefficient	Not available
Autoignition temperature	Not available
Decomposition temperature	No data available
Kinematic viscosity	No information available
Dynamic viscosity	Not available
Explosive properties	No information available
Oxidizing Properties	No information available

**Other information**

Weight % VOC	72.0108
Weight % Solids	27.9892
Density (lbs/gal) U.S.	7.6486

**10. STABILITY AND REACTIVITY****Reactivity**

Stable under normal conditions

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Conditions to avoid**

Heat, flames and sparks.

**Incompatible materials**

Incompatible with strong acids and bases.

**Hazardous decomposition products**nitrogen oxides (NO<sub>x</sub>). Carbon dioxide (CO<sub>2</sub>).**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

<b>Product Information</b>	The product itself has not been tested.
<b>Inhalation</b>	No data available.
<b>Eye contact</b>	No data available.
<b>Skin contact</b>	No data available.
<b>Ingestion</b>	No data available.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Propylene Glycol Methyl Ether 107-98-2	5000 mg/kg ( Rat )		6 mg/L (Rat)
Propyl Acetate 109-60-4	8700 mg/kg ( Rat )		
Titanium dioxide 13463-67-7	10000 mg/kg ( Rat )		
Methanol 67-56-1	6200 mg/kg ( Rat )		
n-Propyl alcohol 71-23-8	1870 mg/kg ( Rat )	4049 mg/kg ( Rabbit )	

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Respiratory or skin sensitization** No information available.  
**Germ cell mutagenicity** No information available.  
**Carcinogenicity** If any carcinogenic components are present, a table below will indicate which agencies have listed the substance as a carcinogen.  
**Reproductive toxicity** Not available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Target Organ Effects** Blood, Central nervous system (CNS), Eyes, Gastrointestinal tract (GI), Liver, Reproductive System, Respiratory system, Skin.  
**Aspiration hazard** No information available.

**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document .

**ATEmix (oral)** 1122 Mg/kg  
**ATEmix (dermal)** 3487 Mg/kg  
**ATEmix (inhalation-dust/mist)** 5.9 mg/L

**12. ECOLOGICAL INFORMATION****Toxicity**

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Propylene Glycol Methyl Ether 107-98-2				EC50 = 23300 mg/L 48 h
n-Propyl alcohol 71-23-8				EC50 = 3642 mg/L 48 h EC50 3339 - 3977 mg/L 48 h

**Persistence and degradability**

No information available.

**Bioaccumulation/ Accumulation**

No information available.

**Mobility in Environmental Media**

Available information on the mobility of specific components is listed below.

Component	log Pow
Propylene Glycol Methyl Ether 107-98-2	-0.437
Methanol 67-56-1	-0.77
n-Propyl alcohol	0.25 - 0.34

71-23-8

### 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods

##### Waste disposal methods

In accordance with local, state/provincial and national regulations.

##### Disposal of contaminated packaging

In accordance with local and national regulations. Empty containers should be taken to local recyclers for disposal.

**US EPA Waste Number:** Consult 40 CFR Part 261

### 14. TRANSPORT INFORMATION

#### DOT

UN number	1210
Proper shipping name	Printing ink, flammable
Hazard class	3
Packing group	II

#### TDG

UN number	1210
Proper shipping name	Printing Ink, flammable
Hazard class	3
Packing group	II

#### IATA

UN number	1210
Proper shipping name	Printing ink, flammable
Transport hazard class(es):	3
Packing Group:	II

#### IMDG

UN number	1210
Proper Shipping Name:	Printing ink, flammable
Transport hazard class(es):	3
Packing Group:	II

### 15. REGULATORY INFORMATION

#### Inventories

TSCA	Complies
DSL/NDSL	Complies

#### Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

#### Federal Regulations

#### SARA Section 313 Toxic Chemical List

The following components are subject to reporting levels established by SARA Title III, Section 313:

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Methanol - 67-56-1	67-56-1	7.2	1.0

**SARA 311/312 Hazardous Categorization**

Acute Health Hazard	No
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactivity Hazard	No

**Clean Air Act**

This product contains the following regulated components:

Component	CAS-No	HAPS data	NC TAPs	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Propylene Glycol Methyl Ether	107-98-2			Group I		
Methanol	67-56-1	Present		Group IV		

**CERCLA**

Component	RQ	CERCLA EHS RQs	RQ
Methanol 67-56-1	5000 lb		5000 lb 2270 kg

**US State Regulations****California Prop. 65**

"WARNING" This product contains the following chemical(s) known to the State of California to cause cancer, birth defects or other reproductive harm.

Component	California Prop. 65
Orange 5 - 3468-63-1	Carcinogen
Methanol - 67-56-1	Developmental

**State Right-to-Know**

Component	New Jersey	Massachusetts	Pennsylvania
Methanol 67-56-1	X	X	X

**U.S. EPA Label information**

EPA Pesticide registration number Not applicable

**Canada**

All components of this product are included on the DSL or NDSL or are not required to be listed.

This product has been classified according to GHS hazard criteria and the SDS contains all of the information required by the HPA.

**16. OTHER INFORMATION**

**NFPA**                      Health 1                      Flammability 3                      Reactivity 0

Prepared by: Regulatory Department  
Preparation Date: 12-Apr-2017  
Revision Date: 12-Apr-2017  
Reason for revision: New/Revised Formula

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the



date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**