SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	NON SKIN PANTONE SERIES
Product Use	Sheet-fed offset printing ink
Manufactured/Distributed by	TOKYO PRINTING INK CORP. USA
Address	2695 Temple Ave., Signal Hill, CA 90755
Telephone	(562) 424-2226
Fax	(562) 424-2216

2. HAZARDS IDENTIFICATION

UN Hazard Classification
HAZARD CLASS : Not Applicable
UN/NA NUMBER : Not Applicable

GHS Classification*

Physical	Flammable Liquid –	Not classified
Health	Acute Toxicity (oral)) –	Not classified
	Acute Toxicity (inhalation) –	Category 4
	Eye Corrosion (serious damage/irritation) -	Category 2B
	Skin Corrosion –	Category 2
	Skin Sensitization –	Category 1
	Respiratory sensitizer –	Not classified
	Mutagenicity –	Not classified
	Aspiration Hazard –	Not classified
	Carcinogenicity –	Not classified
	Reproductive Toxicity-	Not classified
	Target Organ Toxicity (single exposure) –	Category 2
	Target Organ Toxicity (repeated exposure) –	Category 2
Environmental		
	Aquatic Toxicity (acute) – Not classified	
	Aquatic Toxicity (chronic) – Not classified	

GHS Label Elements

Symbols
Pictogram code GHS07

Signal word Warning
Hazard Communication Hazard Code

H332	Harmful if inhaled (mist).
H320	Causes eye irritation.
H317	May cause allergic skin reaction.
H335	May cause respiratory irritation.
H371	May cause damage to lungs.

Prevention	
Summary	Avoid breathing mist wear suitable protective clothing and gloves. After handle this product. Wash hands immediately and gargle sufficiently read well Safety Data Sheets (SDS) before handling elf you feel unwell or allergy, seek medical advice immediately.

Prevention Code

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection
P281	Use personal protective equipment as required.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P309+P311	IF exposed or if you feel unwell: Call a POISON CENTER or Doctor/physician.
P314	Get medical advice/attention if you feel unwell.
P321	Specific treatment (see Prevention on this label).
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, state and federal regulation.

Other Precautionary Statements

Keep away from heat/sparks/open flame. – No smoking.
Use only in a well-ventilated area.
Store container tightly closed in cool/well-ventilated place.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health or environmental hazard within the meaning of Regulation (EC) No 1272/2008 and Directive 67/548/EEC.

COMPOSITION	CONTENT CAS#	wt.%	EU CLP & DSD (Risk) Classification(*)	
Rosin modified phenolic resin	70955-45-2	20- 30	–	–
Vegetable oils mixture	Various	20- 30	–	–
[Ingredient]				
Tung oil	8001-20-5		–	–
Soybean oil	8001-22-7		–	–
Linseed oil	8001-21-6		–	–
Petroleum hydrocarbon	64742-46-7	20- 30	–	–
Pigments	Various	15- 50	–	–
Additives	Various	1 – 5	–	–

(*) For full text of Products EU CLP & DSD see section 15

4. FIRST AID MEASURES

EYE CONTACT: In case of eye irritation flush immediately with clean & large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get immediate medical attention.

SKIN CONTACT: Itching or burning of the skin. Immediately flush the skin with plenty of water while

removing contaminated clothing and shoes. Wash skin thoroughly with mild soap / water. Get immediate medical attention. Wash contaminated clothing before reuse.

Inhalation: Remove person to fresh air. If respiratory irritation, dizziness, nausea, or unconsciousness occurs seek immediate medical assistance. If breathing has stopped, give artificial respiration.

INGESTION Get immediate medical attention. Do not induce vomiting unless directed by medical personnel.

5. FIRE-FIGHTING MEASURES

Suitable Extinguish Media: Use dry chemical carbon dioxide or foam to extinguish fire. Water may be ineffective but should be used spray/fog for cooling and suffocating. Use water to dilute spills and to flush them away from sources of ignition.

Special Fire Fighting Procedures: Exposed firefighters must wear proper protective equipment and positive pressure self-contained breathing apparatus with full face mask. Do not inhale combustion gases.

HAZARDOUS DECOMPOSITION PRODUCTS Products of combustion are hazardous including carbon monoxide and Carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

GENERAL: Consult an expert on the disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

LAND SPILL: Vapor protective clothing should be worn for any leaks. Shut off ignition sources; no flares, smoking or flames in hazard area. Keep public away. Take up with sand or other noncombustible absorbent material and place into containers for later disposal. Prevent additional discharge of product if possible to do so without hazard.

WATER SPILL: Remove from surface by skimming or with suitable absorbents. Do not flush to sewer or waterways. Prevent release to the environment if possible.

7. HANDLING AND STORAGE

Handling

Avoid contact with eyes. Avoid prolonged repeated skin contact and breathing mists/vapors. Use only with adequate ventilation. Use good hygiene practices. Wash hands before eating, drinking, smoking. Remove contaminated clothing and clean before re-use. Keep away from heat and flame. Keep operating temperatures below ignition temperatures at all times. Use non-sparking tools.

Storage

STORAGE TEMPERATURE (min. / max.) : 59°F (15°C) / 86oF (30°C)

AVERAGE SHELF LIFE: 2 years at 59°F (15°C)

SPECIAL SENSITIVITY: Heat. Air (Oxygen).

Risk of rapid polymerization / possibly rupturing container by fire. high heat sources, raising temperature.

Store in tightly closed containers in cool, dry, well-ventilated area away from heat, sources of ignition, and incompatibles. Ground lines and equipment used during transfer to reduce the possibility of static spark-initiated fire or explosion. Store at ambient or lower temperature. Store out of direct sunlight.

Protect against physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Substance	CAS#	OSHA		ACGIH	
		TWA	STEL	TWA	STEL
Petroleum hydrocarbon	64742-46–7	n/e	n/e	5ma/m^3	n/e
Calcium carbonate	471-34-1	n/e	n/e	10ma/m^3	n/e
Titanium dioxide	13463-67-7			1Oma/m^3	n/e
Carbon black	1333-86-4	3.5mQLm^3	n/e	3.5mo/m^3	n/e

n/e– none established

OSHA Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200) Carbon black is considered hazardous ingredient (List on "Table Z-1")

ACGIH: Petroleum hydrocarbon (as oil mist) TLV; 5mg/m3 as TWA [ACGIH2004], Carbon black TLV; 3.5mg /m3 as TWA & A4 (not classifiable as a human carcinogen) [ACGIH2004].

Engineering Controls

VENTILATION: Local exhaust ventilation may be necessary to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source. Provide mechanical ventilation for confined spaces. Use explosion-proof ventilation equipment.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Wear chemical safety splash-proof goggles for eye protection and face shield. Avoid skin contact. Wear impervious gloves for skin protection. Use NIOSH approved respirators when necessary.

9. PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE: Viscous Paste
Color: Various Colors
ODOR: Mild
FLASH POINT: > 132°C / 270°F
BOILING POINT: 270-320°C (Mineral oil)
MELTING POINT: Not Applicable

VAPOR PRESSURE: No Data Available
VAPOR DENSITY (AIR=1): No Data Available
MOLECULAR FORMULA: Mixture
MOLECULAR WEIHGT: Mixture
SPECIFIC GRAVITY: 0.9-1.2 at 25°C / 77°F
SOLUBILITY IN WATER: Insoluble
p H : No Data Available

10. STABILITY AND REACTIVITY

Condition to avoid: Avoid open flames, welding arcs, or other high temperature sources which include thermal decomposition.

Incompatibles: Oxidizing agents

Hazardous Reactions/Decomposition Products: Reacts with strong oxidizing agents. Thermal decomposition products may include oxides of carbon and nitrogen.

11. TOXICOLOGICAL INFORMATION

Corrosive and Irritant Properties

Petroleum hydrocarbon	Oral L D 5 0 (rat)	>5,000mg/kg
	Dermal L D (rabit)	>5,000mg/kg
	Inhalation LD50 (rat)	= 2.18mg/L
Cobalt compound	Oral LD50 (rat)	= 3900mg/kg

Petroleum Hydrocarbon

Acute Toxicity (inhalation) - Category 4
Skin Corrosion/irritation– Category 3
Eye Corrosion/irritation– Category 2B
Aspiration hazard – Category 1
Target Organ Toxicity (following single exposure) – Category 2
Target Organ Toxicity (following repeated exposure) -Category 1

Carbon Black -GHS Information

Carcinogenicity – Category 2**
** Classified on the basis of evaluation as Group 2B (Possibly carcinogenic to humans) according to IARC. Printing inks are not classifiable as to their carcinogenicity to humans (Group 3).

Target Organ Toxicity (following repeated exposure) - Category 1
Causes damage to lungs.

Cobalt compound

Skin Sensitization – Category 1
Carcinogenicity – Category 2*
* IARC: Cobalt and compounds are possibly carcinogenic to humans (Group 28). But the material concerned was not classified so that there was the description of "There is *inadequate evidence*
For the carcinogenicity of cobalt–··· and cobalt [Ⅱ] acetate in experimental animals." (4.5 Evaluation of IARC Monographs/mono52-16.11/10/09)

Other evaluations of Carcinogenicity are not applicable by EPA, EU, and NTP.

12. ECOLOGICAL INFORMATION

No information available

GHS Information - Not classified

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with Federal, State and local regulations.
Empty containers must be handled with care due to product residue.

14. TRANSPORT INFORMATION

U.S. Department of Transportation (DOT) Proper
SHIPPING NAME: Not applicable
HAZARD CLASS: Not applicable
UN/NA NO: Not applicable
Packing Group: Not applicable
Labels Required: Not applicable

The following description is transport in accordance with ADA for road, RID for rail, IMDG for sea and ICAO for air transport.

ADR/RID/IMDG/ICAO/IATA Class: Not applicable
UN Number: Not applicable
Label: Not applicable
Packing group: Not applicable
Proper SHIPPING NAME : Not applicable

15. REGULATORY INFORMATION

(1). U.S. Federal Regulations

Toxic Substances Control Act (TSCA) information
All components of these products are included on the 8 (b) T S C A Inventory list.

Superfund Amendments and Reauthorization Act (SARA) Title III Information
These products contain none of the substances subject to reporting requirements of SARA section 313 (40 CFR 372)

National Fire Protection Association (NFPA) Ratings: This information is intended solely for the use of individuals trained in the NFPA system.

Health: 1
Flammability: 1
Reactivity: O

(2).EU Regulations
European inventory of Existing Chemicals (EINECS): All of the components of this product are included on EINECS.

The following information is based on current EU (directives 67/548/EEC – 28th update [2001/59/EC]. 1999/45/EC, 2001/58/EC and CLP Hazard classification [Regulation (EC) No 1272/2008]).

EU CLP & DSD Classification:
Designation according to EC guidelines in label:

CLP	CLP Hazardous substance: none CLP Classification: No classification standards applicable
DSD	Contains [Cobalt driers]. May produce allergic skin reactions: S: 7-24/25-26-28-36/37-61

Code letter and hazard designation of product: No symbol
Risk (R) Phrases: none
By the component of under cobalt dryer 1%, not classified Risk phrase R42/43.

Safety (S) Phrases:
S7 Keep container tightly closed
S24/25 Avoid contact with eyes and skin
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of water and seek medical advice.
S36/37 Wear suitable protective clothing and gloves.
S61 Avoid release to the environment. Refer to special instructions/Safety data sheet

Components Hazard Information :
Petroleum hydrocarbon
Cas No.64742–46-7is classified into R45 (May cause cancer) for DSD, or into Carc.1B, GHS08, Dgr and H350 for CLP, but this product is refined highly, and this material removes a cancer-causing material. IARC classified Group 3.

Cobalt compound (Co CAS No. 7440-48–4)*

CLP	Resp. Sens. 1	GHS 08	H334
	Skin Sens. 1	Dgr	H317
	Aquatic		H413
	Chronic 4		
DSD	Xn Harmful		
	R42/43 May cause sensitization by inhalation and skin contact.		
	R68 Possible risk irreversible effects.		

*Cobalt in the material concerned is not classified. in the CLP and DSD Regulations for the content of under 0.1%.

Follow all regulations in your country.

16. OTHER INFORMATION

Disclaimer

The information provided in this Material 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.