

SAFETY DATA SHEET

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	ZLX PROCESS YELLOW
Product Use/Restriction	Sheet-fed offset printing ink
Manufacturer's Name	TOKYO PRINTING INK CORP. USA
Address	2695 Temple Ave., Signal Hill CA 90755
Telephone	(562) 424-2226
Fax	(562) 424-2216
Prepared	September 3, 2015

2 HAZARDS IDENTIFICATION

GHS Classification	
PHYSICAL HAZARDS	
FLAMMABLE LIQUIDS	Not classified
HEALTH HAZARDS	
ACUTE TOXICITY (Oral)	Not classified
ACUTE TOXICITY (Dermal)	Not classified
ACUTE TOXICITY (Gases)	Not classified
ACUTE TOXICITY (Vapours)	Classification not possible
ACUTE TOXICITY (Dusts and Mists)	Not classified
SKIN CORROSION/IRRITATION	Classification not possible
SERIOUS EYE DAMAGE/EYE IRRITATION	Classification not possible
RESPIRATION SENSITIZATION	Classification not possible
SKIN SENSITIZATION	Classification not possible
GERM CELL MUTAGENICITY	Classification not possible
CARCINOGENICITY	Classification not possible
REPRODUCTIVE TOXICITY	Classification not possible
EFFECTS ON OR VIA LACTATION	Classification not possible
SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE	Classification not possible
SPECIFIC TARGET ORGAN TOXICITY REPEATED EXPOSURE	Classification not possible
ASPIRATION HAZARD	Classification not possible
ENVIRONMENT HAZARDS	
HAZARDOUS TO THE AQUATIC ENVIRONMENT (ACUTE)	Classification not possible
HAZARDOUS TO THE AQUATIC ENVIRONMENT (CHRONIC)	Classification not possible
HAZARDOUS TO THE OZONE LAYER	Not classified

Label Elements

Signal/symbol	Not applicable
Signal Word	none
Hazard statement	none
Precautionary statements	Safety measures

- Do not handle until all safety precautions have been read and understood.
 - Keep away from flames and hot materials.
 - Wear protective gloves as specified by the manufacturer/supplier or the competent authority.
- First aid
- If skin irritation or rash occurs, seek medical advice/attention.
 - Wash contaminated clothing before reuse.
 - Call a POISON CENTER or doctor/physician if you feel unwell.
- Waste
- Dispose of contents/container in accordance with local/regional/national/ international regulation.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Single substance/Mixture : Mixture

Common name : Sheet-fed offset printing ink

Ingredient and content rate :

Component	Industrial Safety and Health Act Article 57 - 2 Target Name	Content rate(%)	Official Notice No.	CAS No.	Regulations
	PRTR Act Target Name				
Cobalt compounds	cobalt and its compounds	<1	(2)-615	136-52-7	1_6,3
	—				
Hydrotreated petroleum hydrocarbon	Mineral oil	25~35	—	—	1_6,5
	—				
Pigment	—	10~20	—	—	—
	—				
Synthetic resin	—	25~35	—	—	—
	—				
Vegetable oils mixture	—	15~25	—	—	—
	—				
Additives	—	1~5	—	—	—
	—				

PRTR (Law concerning Pollutant Release and Transfer Register) are listed in 15.Regulations

Regulations:

1_6: Industrial Safety and Health Act(Act 2 of Article 57)

3: Pollutant Release and Transfer Register Law

5: Fire Service Act

4 FIRST AID MEASURES

If inhaled: : Remove victim to fresh air immediately. Blow nose and rinse mouth. Get medical attention.

If on skin: : Induce to put off contaminated cloths or shoes immediately. Wash adherent/contact site with soap and water. Rinse with plenty of water. If skin irritation or rash occurs: Get medical treatment.

- If in eyes: : Rinse with plenty of water immediately over fifteen minutes. Get medical treatment of eye doctor.
- If swallowed: : Rinse mouth cautiously with water. Immediately get medical treatment.

5 FIRE-FIGHTING MEASURES

Extinguishant :

- Powder, Form, Carbon dioxide, Dry sand, Mist Extinguishant

Will not use fire extinguishers :

- Nothing particular

How to fire in certain way :

- Remove container to a safe place immediately.
- If impossible to remove container ,keep container cool by spraying with water. • Extinguish with specified media.

Protection of persons engaged in fire :

- Put proper protective equipment for fire-fighting. Get away from leeward.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions,protective equipment and emergency procedures : • Evacuate people from leeward.

- Declare off-limits around leaked area by roped-off or display.
- Remove nearby ignition source immediately.
- Wear protective equipment during fire-fighting.
- During clean up, keep windward.
- At indoors, ventilate enough until all the leak disposed completely.
- Dispose excrescence and waste in accordance with your local regulation.
- Keep away from broken container or leakage, until put on proper protective clothes.

Environmental precautions :

- Be careful not to leak concentrated wash solution to river.

Methods and materials for containment and cleaning up :

- Collect spillage in a suitable covered container as far as possible.
- Rinse away by large mount of water and neutral detergent after collecting enough.
- For mass spillage , dam up with incombustible such as earth or sand.

7 HANDLING AND STORAGE

Notes for safe handling

- Put on proper protective equipment avoiding inhalation, touch in eyes, skin, clothes.
- Burnout or dispose the cloth and waste with excrescence rapidly.
- Remove dirt and change your work clothing, when your work clothing became dirt.
- Wash hands and gargle enough after handling.
- Pay attention to fire, and ventilate enough.

Storage :

- Store in a well-ventilated cool dark place with airtight container.
- Follow applicable regulations in your country. • Keep under lock and key.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Standard control concentration and tolerance concentration :

Component	Standard control concentration	ACGIH(TWA)	Japan Society for Occupational Health
Hydrotreated petroleum hydrocarbon	No data	5mg/m ³ (as Mineral oil mist)	3mg/m ³ (as Mineral oil mist)

*:Maximum tolerance concentration

Measures equipment : In doors, vapor source should be hermetically closed or work chamber should be ventilated.
Protective : Wear protective glass/glove/clothing/boot. equipment Wear proper respiratory protective equipment if necessary.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical-chemical properties of the product :

Physical status

Appearance form : Paste
Color : Yellow
Odour : Oily Odor
pH : No data
Specific gravity : 0.95~1.10(25°C)

Specific temperature at which the physical state changes

Melting point/Freezing point(°C) : No data
Boiling point(°C) : No data
Flash point(°C) : 130

Solubility

Solubility for solvent
Water : Slightly Soluble
Organic solvent : Soluble

Decomposition temperature(°C) : No data

Physical-chemical properties of the components :

Component	Boiling point (°C)	Spec. gravity Water=1	Solubility in water	Vapor press. (kPa)	Vapor density Air=1	Flash point (°C)	Ignition temp. (°C)	Explosion limit (vol%)	LogPo/w	Source
Cobalt compounds	No data	1.013 (25°C)	No data	No data	No data	No data	No data	No data	No data	7
Hydrotreated petroleum hydrocarbon	No data	No data	Insoluble	No data	No data	140	No data	1~7	No data	1,2,6

Source:

- 1: Guide to Occupational Exposure Values by ACGIH
- 2: Guide to Occupational Exposure Values by Japan Society for Occupational Health
- 6: Safety Data Sheet of the substance
- 7: "Chemical Risk Information Platform" by NITE (National Institute of Technology and Evaluation)

10 STABILITY AND REACTIVITY

Chemical stability/Possibility of hazardous reactions : • Coming in contact with air, oxidized and polymerized it.

Conditions to avoid :

- Put the drier skin out of this product, used waste clothes into a nonflammable full of water and cover it.

Hazardous decomposition products :

- Burning produces toxic gas like CO or NOx.

11 TOXICOLOGICAL INFORMATION

Hazard of Product : No Information as Product Hazardous of

Components(GHS)-1:

Component	ACUTE TOXICITY Oral mg/kg	ACUTE TOXICITY Dermal mg/kg	ACUTE TOXICITY Gases ppmV	ACUTE TOXICITY Vapours mg/l	ACUTE TOXICITY Dusts & Mists mg/l	SKIN CORROSION /IRRITATION	SERIOUS EYE DAMAGE/EYE IRRITATION
Cobalt compounds	Classification not possible	Classification not possible	Classification not possible	Classification not possible	Classification not possible	Classification not possible	Classification not possible
Hydrotreated petroleum hydrocarbon	Not classified (>5000)	Not classified (>5000)	Not classified	Classification not possible	Classification not possible	Classification not possible	Classification not possible

Hazardous of Components(GHS)-2:

Component	RESPIRATION SENSITIZATION /SKIN SENSITIZATION	GERM CELL MUTAGENICITY	CARCINOGENICITY	PERPRODUCTIVE TOXICITY /EFFECTS ON OR VIA LACTATION	SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE	SPECIFIC TARGET ORGAN TOXICITY REPEATED EXPOSURE	ASPIRATION HAZARD
Cobalt compounds	RESPIRATION SENSITIZATION :Classification not possible SKIN SENSITIZATION :Classification not possible	Classification not possible	Classification not possible	REPRODUCTIVE TOXICITY:Classification not possible EFFECTS ON OR VIA LACTATION:Classification not possible	Classification not possible	Classification not possible	Classification not possible
Hydrotreated petroleum hydrocarbon	RESPIRATION SENSITIZATION :Classification not possible SKIN SENSITIZATION :Not classified	Not classified	Not classified	REPRODUCTIVE TOXICITY:Classification not possible EFFECTS ON OR VIA LACTATION:Classification not possible	Not classified	Not classified	Category1

Hazard Information :

- <If titanium dioxide / carbon black contained>Titanium dioxide and carbon black are classified as the group2B in IARC. However the cancer-causing property of printing inks products contain titanium dioxide and/or carbon black is classified as the group3 in IARC.

12 ECOLOGICAL INFORMATION

Hazard of Product : No Information as Product Hazardous to the Environment of Components :

Component	HAZARDOUS TO THE AQUATIC ENVIRONMENT (ACUTE)	HAZARDOUS TO THE AQUATIC ENVIRONMENT (CHRONIC)	HAZARDOUS TO THE OZONE LAYER
Cobalt compounds	Classification not possible	Classification not possible	Not classified
Hydrotreated petroleum hydrocarbon	Not classified	Not classified	Not classified

13 DISPOSAL CONSIDERATION

Residual waste :

- Put in an airtight drum to avoid leaking even if fallen down.
- Do not leak wash solution to ground or drain.
- Dispose contents in accordance with your local regulation.
- When ask to other disposer, confirm that they have the permission to dispose industrial waste.

Contaminated containers and packaging :

- Remove content completely from container before discarding.
- Dispose containers and packaging in accordance with your local regulation.

14 TRANSPORT INFORMATION

Notes :

- Check out leak of container, then avoid from falling down, breakage • Ensure keeping back collapse of cargo.

UN classification : Not applicable
 UN Identification Number : Not applicable
 UN Proper Shipping Name : Not applicable
 Guide Number : 171

15 REGULATORY INFORMATION

- Industrial Safety and Health Act(Certain chemical substances) : Not applicable
- Industrial Safety and Health Act(Organic solvent) : Not applicable
- Industrial Safety and Health Act(Act 1 of Article 57) : Not applicable
- Industrial Safety and Health Act(Act 2 of Article 57) : SDS required
- Industrial Safety and Health Act(Guidelines for Carcinogen) : Not applicable
- Poisonous and Deleterious Substances Control Law(Poisonous substance) : Not applicable
- Poisonous and Deleterious Substances Control Law(Deleterious substance) : Not applicable
- Pollutant Release and Transfer Register Law : Not applicable
- Fire Prevention ordinance : Dangerous substance
- Waste Management And Public Cleansing Law : Applicable

Industrial Safety and Health Act Pollutant Release & Transfer Register (Article 57-2)

Target Name	Content rate(%)
-------------	-----------------

Target Name	Cabinet Order No.	Division to Manage Chemicals	Content rate(%)
-------------	-------------------	------------------------------	-----------------

Mineral oil	25~35
cobalt and its compounds	<1

—	—	—	—
---	---	---	---

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.