Safety Data Sheet
Optilux® 505 Reflective Plastisol

SDS Revision Date: **02/26/2015**

1. Identification

1.1. Product identifier

Product Identity	Optilux® 505 Reflective Plastisol
Alternate Names	Plastisol Screen Printing Inks

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	Screen Printing.
Application Method	See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name	International Coatings Company, Inc. 13929 East 166th Street Cerritos, CA 90702-7666
Emergency	
24 hour Emergency Telephone No.	(800) 255-3924
Customer Service: International Coatings Company, Inc.	(562) 926-1010

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Acute Tox. 5;H303 May be harmful if swallowed. (Not adopted by US OSHA)

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Warning

H303 May be harmful if swallowed.

[Prevention]:

No GHS prevention statements

[Response]:

P312 Call a POISON CENTER or doctor / physician if you feel unwell.

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
1,2,4-Benzenetricarboxylic acid, trihexyl ester CAS Number: Proprietary	10 - 25	Not Classified	[1]
Barium oxide (BaO) CAS Number: 0001304-28-5	10 - 25	Acute Tox. 4;H302 Acute Tox. 4;H332	[1]
PVC (Chloroethylene, polymer) CAS Number: Proprietary	10 - 25	Not Classified	[1]
Titanium dioxide CAS Number: 0013463-67-7	10 - 25	Not Classified	[1][2]
Amorphous fumed silica CAS Number: 0112945-52-5	1.0 - 10	Not Classified	[1]
Alkylsulfonic Acid Ester of Phenol CAS Number: Proprietary	1.0 - 10	Acute Tox. 4;H312	[1]
Epoxidised soya oil CAS Number: 0008013-07-8	1.0 - 10	Not Classified	[1]

[1] Substance classified with a health or environmental hazard.
[2] Substance with a workplace exposure limit.
[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If the person is conscious, induce vomiting immediately by giving 2 glasses of water and pressing finger down the throat. Repeat until vomit is clear, then give milk. Contact a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Overview Exposure to solvent vapor concentrations from the component solvents in excess of the

stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.

Ingestion May be harmful if swallowed. (Not adopted by US OSHA)

5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO_2, powder, water spray.
Do not use: water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Hydrogen chloride (if heated), carbon monoxide and carbon dioxide.

5.3. Advice for fire-fighters

In the event of fire, wear full protective clothing and NIOSH Approved Self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Move container from fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapors.

ERG Guide No. ----

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment as listed in Section 8 during clean up operations.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations. (See section 13).

Clean, preferably with a detergent. Do not use solvents.

Do not allow spills to enter drains or watercourses.

If drains, sewers, streams or lakes are contaminated, inform the local water company immediately. In the case of contamination of rivers, streams or lakes the Environmental Protection Agency should also be informed.

7. Handling and storage

7.1. Precautions for safe handling

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Store in cool dry place. Elevated temperatures thicken product and shorten useful life.

Incompatible materials: Composition: Avoid contact with strong acids, alkali or oxidizing agents.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0001304-28-5	Barium oxide (BaO)	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
Proprietar	1,2,4-Benzenetricarboxylic acid, trihexyl ester	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0008013-07-8	Epoxidised soya oil	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
Proprietary	PVC (Chloroethylene, polymer)	OSHA	No Established Limit
		ACGIH	No Established Limit

		NIOSH	No Established Limit
		Supplier	No Established Limit
0013463-67-7	Titanium dioxide	OSHA	TWA 15 mg/m3
		ACGIH	TWA: 10 mg/m32B, Revised 2006,
		NIOSH	Footnote ca
		Supplier	No Established Limit
0112945-52-5	Amorphous fumed silica	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
Proprietary	Alkylsulfonic Acid Ester of Phenol	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
0001304-28-5	Barium oxide (BaO)	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
Proprietary	1,2,4-Benzenetricarboxylic acid, trihexyl ester	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0008013-07-8	Epoxidised soya oil	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
Proprietary	PVC (Chloroethylene, polymer)	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0013463-67-7	Titanium dioxide	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No;
0112945-52-5	Amorphous fumed silica	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
Proprietary	Alkylsulfonic Acid Ester of Phenol	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory	Not Required
Eyes	Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash of liquids.
Skin	Neoprene gloves are recommended.
Engineering Controls	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Smooth thick Liquid
Odor	Faint
Odor threshold	Not Measured
pH	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	>420 F @5mmhg
Flash Point	>400 F C.O.C.
Evaporation rate (Ether = 1)	< 1
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** Not Measured **Upper Explosive Limit:** Not Measured
Vapor pressure (Pa)	Not Measured
Vapor Density	> 1 (Air=1)
Specific Gravity	1.60 - 1.70
Solubility in Water	Insoluble
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
VOC Content	< 0.1 lb/gallon
% Volatile	< 1

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid exposure to heat and humidity.

10.5. Incompatible materials

Composition: Avoid contact with strong acids, alkali or oxidizing agents.

10.6. Hazardous decomposition products

Hydrogen chloride (if heated), carbon monoxide and carbon dioxide.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
1,2,4-Benzenetricarboxylic acid, trihexyl ester - (Proprietary)	No data available	No data available	No data available	No data available	No data available
Barium oxide (BaO) - (1304-28-5)	No data available	No data available	No data available	No data available	No data available
Titanium dioxide - (13463-67-7)	10,000.00, Rat - Category: NA	10,000.00, Rabbit - Category: NA	No data available	6.82, Rat - Category: NA	No data available
PVC (Chloroethylene, polymer) - (Proprietary)	No data available	No data available	No data available	No data available	No data available
Amorphous fumed silica - (112945-52-5)	3,160.00, Rat - Category: 5	No data available	No data available	No data available	No data available
Alkylsulfonic Acid Ester of Phenol - (Proprietary)	> 5,000.00, Rat - Category: NA	> 1,000, Rat - Category: 4	No data available	No data available	No data available
Epoxidised soya oil - (8013-07-8)	21,000.00, Rat - Category: NA	2,000.00, Rabbit - Category: 4	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	5	May be harmful if swallowed. (Not adopted by US OSHA)
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
1,2,4-Benzenetricarboxylic acid, trihexyl ester (Proprietary)	Not Available	Not Available	Not Available
Barium oxide (BaO) - (1304-28-5)	Not Available	Not Available	Not Available
Chloro-ethen-homopolymer - (Proprietary)	Not Available	Not Available	Not Available
Titanium dioxide - (13463-67-7)	1,000.00, Fundulus heteroclitus	5.50, Daphnia magna	5.83 (72 hr), Pseudokirchneriella subcapitata
PVC (Chloroethylene, polymer) - (Proprietary)	Not Available	Not Available	Not Available
Amorphous fumed silica - (112945-52-5)	Not Available	Not Available	Not Available

Epoxidised soya oil - (8013-07-8)	900.00, Leuciscus idus	100.00, Daphnia magna	8.00 (72 hr), Scenedesmus subspicatus

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Applicable		
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	**DOT Hazard Class:** Not Applicable	**IMDG:** Not Applicable **Sub Class:** Not Applicable	**Air Class:** Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.
WHMIS Classification	Not Regulated
US EPA Tier II Hazards	**Fire:** No
	Sudden Release of Pressure: No
	Reactive: No
	Immediate (Acute): Yes
	Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

1-methyl-2-pyrrolidone

Methanol

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Barium oxide (BaO)

Chloroethylene, polymer

Titanium dioxide

Pennsylvania RTK Substances (>1%):

Titanium dioxide

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H332 Harmful if inhaled.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

International Coatings Co., Inc. believes to the best of its knowledge that the information provided herein, is factual and the recommendations made are accurate as of the date shown. However, no representation or warranty is made as to their completeness or accuracy.

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