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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Identity PF Metallic Series

Alternate Names Plastisol Screen Printing Ink

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 Total Ink Solutions

200 S. Newman Street Unit #4&5

Hackensack NJ 07601

Emergency

24 hour Emergency Telephone No. (800) 535-5053 **Customer Service: Total Ink Solutions** (201)487 -9600

Inc.

2. Hazard identification of the product

2.1. Classification of the substance or mixture

Acute Tox. 5;H313 May be harmful in contact with skin. (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

H313 May be harmful in contact with skin.

[Prevention]:

P260 Do not breathe mist / vapors / spray.

P262 Do not get in eyes, on skin, or on clothing.

[Response]:

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.

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



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P331 Do NOT induce vomiting.

[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
Polyvinyl Chloride/Polyvinyl Acetate Copolymer CAS Number: Proprietary	50 - 75		[1]
Dioctyl adipate CAS Number: 0000103-23-1	10 - 25		[1]
Alkylsulfonic Acid Ester of Phenol CAS Number: Proprietary	10 - 25	Acute Tox. 4;H312	[1]
Aluminum (Al) CAS Number: 0007429-90-5	1.0 - 10		[1][2]
Stoddard solvent CAS Number: 0008052-41-3	0.1 - 1.0	STOT RE 1;H372 Asp. Tox. 1;H304	[1][2]

^[1] Substance classified with a health or environmental hazard.

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.

Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and **Eyes**

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.

^[2] Substance with a workplace exposure limit.

^[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

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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.

Eyes Causes serious eye irritation.

Skin Causes skin irritation.

5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, 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.

Do not breathe mist / vapors / spray.

Do not get in eyes, on skin, or on clothing.

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.



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Contain and absorb spillage with non-combustible materials e.g. sand, earth, 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
0000103-23-1	Dioctyl adipate	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0007429-90-5	Aluminum (Al)	OSHA	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)
		ACGIH	TWA: 1.o mg/m3Revised 2008,
		NIOSH	TWA 10 mg/m3 (total) TWA 5 mg/m3 (resp)
		Supplier	No Established Limit
0008052-41-3	Stoddard solvent	OSHA	TWA 500 ppm (2900 mg/m3)
		ACGIH	TWA: 290 mg/m3STEL: 580 mg/m3
		NIOSH	TWA 350 mg/m3 C 1800 mg/m3 [15-minute]
		Supplier	No Established Limit

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TOTAL INK
SOLUTIONS

Proprietary	Alkylsulfonic Acid Ester of Phenol	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
Proprietary	Polyvinyl Chloride/Polyvinyl Acetate	OSHA	No Established Limit
	Copolymer	ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value		
0000103-23-1	Dioctyl adipate	OSHA	Select Carcinogen: No		
			Known: No; Suspected: No		
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;		
0007429-90-5	Aluminum (Al)	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;		
0008052-41-3	Stoddard solvent		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		
			Known: No; Suspected: No		
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;		
Proprietary Polyvinyl Chloride/Polyvinyl Acetate Copolymer		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.



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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

Vapor pressure (Pa)

Upper Explosive Limit: Not Measured
Not Measured

Vapor Density> 1 (Air=1)Specific Gravity1.15-1.25Solubility in WaterInsolublePartition coefficient n-octanol/water (Log Kow)Not Measured

Auto-ignition temperature

Decomposition temperature

Viscosity (cSt)

Not Measured

Not Measured

Not Measured

Not Measured

Not Measured

VOC %

< 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

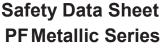
Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid exposure to heat and humidity.



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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

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.

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
Polyvinyl Chloride/Polyvinyl Acetate Copolymer - (Proprietary)	No data available	No data available	No data available	No data available	No data available
Dioctyl adipate - (103-23-1)	No data available	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
Aluminum (Al) - (7429-90-5)	No data available	No data available	No data available	No data available	No data available
Stoddard solvent - (8052-41-3)	No data available	No data available	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)		Not Applicable
Acute toxicity (dermal)	5	May be harmful in contact with skin. (Not adopted by US OSHA)
Acute toxicity (inhalation)		Not Applicable
Skin corrosion/irritation		Not Applicable

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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

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Polyvinyl Chloride/Polyvinyl Acetate Copolymer - (Proprietary)	Not Available	Not Available	Not Available
Dioctyl adipate - (103-23-1)	Not Available	Not Available	Not Available
Alkylsulfonic Acid Ester of Phenol - (Proprietary)	Not Available	Not Available	Not Available
Aluminum (Al) - (7429-90-5)	Not Available	Not Available	Not Available
Stoddard solvent - (8052-41-3)	Not Available	Not Available	Not Available

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

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13.1. Waste treatment methods

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

14. Transport information

DOT (Domestic Surface IMO

Transportation)

Not Applicable
Not Regulated

14.2. UN proper shipping

name

14.3. Transport hazard

14.1. UN number

class(es)

DOT Hazard Class: Not

Applicable

DOT Label: ---

14.4. Packing group Not Applicable

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

IMO / IMDG (Ocean ICAO/IATA Transportation)

Not Regulated Not Regulated

IMDG: Not Applicable

Sub Class: Not Applicable

Air Class: Not Applicable

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Not Applicable Not Applicable

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): Yes

EPCRA 311/312 Chemicals and RQs:

(No Product Ingredients Listed)

EPCRA 302 Extremely Hazardous:

(No Product Ingredients Listed)

EPCRA 313 Toxic Chemicals:

Aluminum (Al)

Proposition 65 - Carcinogens (>0.0%):



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(No Product Ingredients Listed)

Proposition 65 - Developmental Toxins (>0.0%):

(No Product Ingredients Listed)

Proposition 65 - Female Repro Toxins (>0.0%):

(No Product Ingredients Listed)

Proposition 65 - Male Repro Toxins (>0.0%):

(No Product Ingredients Listed)

N.J. RTK Substances (>1%):

Aluminum (Al)

Dioctyl adipate

Stoddard solvent

Penn RTK Substances (>1%):

Aluminum (Al)

Dioctyl adipate

Stoddard solvent

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:

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H372 Causes damage to organs through prolonged or repeated exposure.

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.