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 Product No.: PXPA01-46

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 **Product Name** XTRAMAX IPAFIX 101 SG
 1.2 **Product Code:** PXPA01-46
 1.3 **Recommended Use and Restriction on Use:** Isopropyl alcohol substitution in offset printing industry.
 1.4 **Manufacturer:** FUJIFILM Asia Pacific Pte. Ltd.
 UEN: 199301558N
 1.5 **Address:** 15 Tuas Avenue 7
 Singapore 639270
 1.6 **Business Phone Number:** (65) 6862 2116 (Operating hours: 0830-1730 hours Mondays-Fridays)
Fax: (65) 6861 4829
Emergency Phone Number: (65) 6863 8753

SECTION 2: HAZARDS IDENTIFICATION

2.1 GHS Classification:

Hazard Class	Hazard Category	Hazard Statement
Acute toxicity (Oral):	Category 4	Harmful if swallowed.
Acute toxicity (Dermal):	Category 4	Harmful in contact with skin.
Acute toxicity (Inhalation):	Category 4	Harmful if inhaled.
Skin corrosion/irritation:	Category 2	Causes skin irritation.
Serious eye damage/irritation:	Category 2	Causes serious eye irritation.

2.2 GHS label elements

Pictograms:



2.3 Signal Word: Warning

2.4 Precautionary Statements:

Prevention

Avoid breathing dust/fume/gas/mist/vapours/spray.
 Wash your hands and face thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.

Response

IF SWALLOWED: Rinse mouth.
 IF ON SKIN: wash with plenty of soap and water.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Call a POISON CENTER or doctor/physician if you feel unwell.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If skin irritation occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 Take off contaminated clothing and wash before reuse.

Storage

None.

2.5 Disposal:

Dispose of contents/containers in accordance with local/national regulations.

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Other Hazards Which Do Not Result in Classification

Primary Hazards

None

Specific Hazards

None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance or Preparation:

Chemical Name	CAS No.	% by Weight
2-Butoxyethanol	111-76-2	100

SECTION 4: FIRST-AID MEASURES

4.1 Inhalation:

- Move the victim into the fresh air, keep him or her warm and quiet, cover with a blanket, and send for immediate medical assistance.
- If the victim is not breathing or is breathing very weakly, loosen his or her clothing in order to secure an airway and begin artificial respiration.
- If the casualty is unconscious, but breathing, or is conscious but experiencing breathing difficulties, the provision of oxygen is effective. It is preferable to do this under medical supervision.
- No medicine other than oxygen may be dispensed. No food may be given to the victim without the physician's direction.

4.2 Skin Contact:

- If it is spilled on the skin, wash off with copious amounts of soap and water.
- Remove the contaminated clothes, shoes, etc., immediately. Cut the clothing off if necessary. Subsequently, rinse the skin with cool or tepid running water for at least 30 minutes.
- Immediate medical attention is required.

4.3 Eye Contact:

- If a contact lens is in place, remove it and wash the eye with warm running water for at least 15 minutes, unless the lens is firmly attached to the eye. Use physiological saline if it is readily available.
- Do not stop rinsing the eye. During the rinse, open the eyelid with your fingers so that water can reach under the eyelid. Send for an ophthalmologist immediately. An ophthalmological examination is absolutely essential because the possibility exists that there may be after effects even if there are no immediate pain or vision problems.

4.4 Ingestion:

- If it is swallowed, call a doctor immediately.
- Do not attempt to make the victim vomit.
- Rinse the mouth out thoroughly with water.
- Give the casualty 1-2 glasses of water to dilute the quantity of the substance in the stomach. (If milk is readily available, this can be given to the casualty after the water.)
- If the victim vomits of his/her own accord, bend his/her body so as to prevent vomit from entering the lungs. After vomiting, allow the victim to drink more water. Keep the victim warm and send for a doctor immediately and show SDS or label.

4.5 Likely Acute or Delayed:

- None

4.6 Note to Physician:

- None

4.7 Protection of First-Aid Providers:

- First-aid personnel should wear personal protection equipment when assisting the casualty.

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SECTION 5: FIRE-FIGHTING MEASURES**5.1 Suitable Fire-Extinguishing Media:**

- Foam (alcohol-resistant foam), powder and carbon dioxide are effective fire-extinguishing agents.

5.2 Unsuitable Extinguishing Media:

- Do not use water in a jet.

5.3 Hazardous Combustion Products

- Smoke, fume, oxides of carbon.

5.4 Special Protective Actions for Fire Fighters:

- Cool the container(s) surface that is exposed to fire and adjacent containers by spraying with water.
- When fighting the fire, wear protective equipment (i.e., self contained breathing apparatus, respiratory masks, chemical protection suit, gloves, boots, goggles, etc.) as needed to avoid inhaling and/or skin contact with the chemical substance. Extinguish from the upwind direction.
- Container may explode when heated. Sensitive to static discharges.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment, and Emergency Measures:**

- Wear protective equipment (i.e., self contained breathing apparatus, respiratory masks, chemical protection suit, gloves, boots, goggles, etc.) as needed to avoid inhaling and/or skin contact with the chemical and/or vapours, if any. Work upwind, if possible.
- See Section 8 of this SDS for Personal Protective Equipment.

6.2 Environmental Precautions:

- Do not allow to enter drains, sewers or water courses.
- The chemical substance in question should not be released into the environment (water, soil).

6.3 Spill Containment and Cleaning Up:**Minor Spills**

- Avoid chemical contact by using personal protective equipment.
- Clean up spills immediately.
- Contain and absorb spill with sand, earth or other suitable absorbent material.
- Place spilled material in clean, dry, sealable, labelled container for disposal.

Major Spills (>155 gallon / 210 liter drum)

- Clear area of personnel and move upwind.
- Call SCDF or local Fire Brigade.
- Wear full body protective clothing with appropriate respiratory masks (including self contained breathing apparatus).
- Prevent, by any means available, spillage from entering drains or water course.
- Stop leak if safe to do so.
- Contain spill with sand, earth or other suitable absorbent material.
- Collect recoverable product into labelled containers for recycling.
- Neutralise/decontaminate residue.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
- If contamination of drains or waterways occurs, advise local Environmental Agency or Authority.

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for Safe Handling:**

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.

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- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

7.2 Conditions for Safe Storage:

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area, away from heat and sources of ignition.
- Store away from incompatible materials and foodstuff containers.
- Keep out of reach of children.
- Protect containers against physical damage and check regularly for leaks.
- Post "No Smoking or Open Flames" sign in storage and use areas.
- All electrical equipment in storage area must be intrinsically safe or explosion-proof.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters/Occupational Exposure Limits:

Ingredient	CAS No.	PEL/OEL	Source
2-Butoxyethanol	111-76-2	96.9 mg/m ³ (20 ppm)	ACGIH TWA
2-Butoxyethanol	111-76-2	242 mg/m ³ (50 ppm)	ACGIH STEL
2-Butoxyethanol	111-76-2	50 ppm skin	OSHA TWA

8.2 Appropriate Engineering Controls:

- Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator.

8.3 Personal Protective Equipment:

- Use the following protective equipment as needed:
- **Respiratory Protection:** Self contained breathing apparatus.
- **Eye Protection:** Wear approved safety goggles.
- **Hand Protection:** Wear protective gloves. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.
- **Skin Protection:** Apron and long sleeves are recommended. Wear suitable protective clothing.
- **Hygiene Measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	Appearance Physical State:	Clear liquid	
9.2	Colour:	Colourless	
9.3	Odour:	Alcohol	
9.4	Odour Threshold:	Not available	
9.5	Property	Value	Notes
	Melting Point	Not applicable	
	Boiling Point	168 - 173 °C	
	Flash Point	67 °C (Abel)	
	Explosive Limit	1.1 Vol. %	Lower limit
	Explosive Limit	10.6 Vol. %	Upper limit
	Vapour Pressure	80 Pa	@ 20°C
	Vapour Density	4.1	Air=1
	Relative Density	0.890 - 0.900	25°C
	Solubility in Water	Completely soluble	Water at 20°C

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Solubility (Other)	Not applicable	
Partition Coefficient: n-octanol/water	0.83	
Viscosity	Not available	
pH	Not available	25°C
Evaporation Rate	0.08	Butyl Acetate = 1
Flammability (solid, gas)	Not applicable	
Auto-Ignition Temperature	240 °C	
Decomposition Temperature	Unknown	

SECTION 10: STABILITY AND REACTIVITY

- 10.1 Reactivity/Incompatible Materials:**
- Strong acids, strong oxidising agents.
- 10.2 Chemical Stability:**
- Stable under normal temperature and pressure.
- 10.3 Possibility of Hazardous Reaction:**
- Hazardous polymerisation will not occur.
- 10.4 Conditions to Avoid:**
- Avoid heat, sparks, open flames and other ignition sources.
- 10.5 Hazardous Decomposition Products:**
- At elevated temperatures, carbon dioxide (CO₂), carbon monoxide (CO).

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1 Acute Toxicity on Product:**
- Oral LD50 Rat 1,746 mg/kg
 - Oral LD50 Guinea pig 1,400 mg/kg
 - Dermal LD50 Guinea pig > 2000 mg/kg
 - Inhalation LC50 Rat 4h, Vapour 700ppm

11.2 Acute Toxicity on Ingredients:

Chemical Name	CAS No.	Acute Oral (LD50 mg/kg)	Test Animal
2-Butoxyethanol	111-76-2	1,746	Rat

- 11.3 Skin Corrosion/Irritation:**
- Brief contact may cause slight skin irritation with local redness. Repeated exposure may cause irritation, even a burn. May cause more severe response on covered skin (under clothing, gloves).
- 11.4 Serious Eye Damage/Irritation:**
- May cause severe eye irritation. May cause moderate corneal injury. Effects may be slow to heal. Vapour may cause eye irritation experienced as mild discomfort and redness.
- 11.5 Respiratory Organ or Skin Sensitisation:**
- Did not cause allergic skin reactions when tested in humans and guinea pigs.
- 11.6 Germ Cell Mutagenicity:**
- None.
- 11.7 Carcinogenicity:**
- None.
- 11.8 Reproductive Toxicity:**
- None.

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11.9 Specific Target Organ Toxicity:

- None.

11.10 Aspiration Hazard

- Not applicable.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity of Product:

Chemical Name	CAS No.	Toxicity	Marine Organism
2-Butoxyethanol	111-76-2	LC50 (96h): 1,700 mg/l	Fish: Rainbow trout
2-Butoxyethanol	111-76-2	LC50 (96h): 820 - 1,490 mg/l	Fish: Bluegill
2-Butoxyethanol	111-76-2	LC50: 835 mg/l	Water flea: Daphnia magna
2-Butoxyethanol	111-76-2	LC50 (96h): 550 - 950 mg/l	Common shrimp: Crangon crangon
2-Butoxyethanol	111-76-2	EC50: 1,600 - 2,500 mg/l	Water flea: Daphnia magna
2-Butoxyethanol	111-76-2	EC50 (72h): 911 mg/l	Green algae

12.2 Persistence and Degradability:

- Material is readily biodegradable. Oxidises rapidly by photo-chemical reaction in air.

12.3 Bioaccumulative Potential:

- Not expected to bioaccumulate significantly.

12.4 Mobility:

- If product enters soil, it will be highly mobile and may contaminate groundwater. Dissolve in water.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal Method in Singapore:

- Dispose off in accordance to the Environmental Public Health Regulations under the Environmental Protection and Management Act (EPMA).

13.2 Disposal Method Overseas:

- Dispose off in accordance with all applicable local or national regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 Land (ADR):

- UN Number: Not applicable.
- Class: Not classified as dangerous material.
- Subsidiary Risk: Not regulated.
- Packing Group: Not regulated.
- Proper Shipping Name: Not regulated.

14.2 Sea (IMDG):

- UN Number: Not applicable.
- Class: Not classified as dangerous material.
- Subsidiary Risk: Not regulated.
- Packing Group: Not regulated.
- Proper Shipping Name: Not regulated.
- Marine Pollutant (Yes/No): Not regulated.
- Packing Instructions: Not regulated.
- Limited Quantity: Not applicable.
- Further Information: Material not classified for transport at sea.

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14.3 Sea (Annex II of MARPOL 73/78 and the IBC Code):

- Pollution Category: Not applicable.
- Ship Type: Not applicable.
- Product Name: Not applicable.

14.4 Air (IATA):

- UN Number: Not applicable.
- Class: Not classified as dangerous material.
- Packing Group: Not regulated.
- Proper Shipping Name: Not regulated.
- Subsidiary Risk: Not regulated.
- Further Information: Material not classified for air transport.

14.5 Special Precautions:

- None.

SECTION 15: REGULATORY INFORMATION**15.1 Applicable Singapore Regulations:**

- Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations:
This product is subject to the SDS, labelling, PEL and other requirements in the act/regulation.
- Environmental Protection and Management Act & Environmental Protection and Management (Hazardous Substances) Regulations:
This product is subject to the requirements in the act/regulation.
- Fire Safety Act and Fire Safety (Petroleum and Flammable Materials) Regulations:
This product is subject to the requirements in the act/regulation.

SECTION 16: OTHER INFORMATION**16.1 Issued By:**

- FUJIFILM Asia Pacific Pte. Ltd.
- This SDS is prepared in accordance with Singapore Standard SS 586 : Part 3 : 2008.

16.2 Warranty:

- The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions.