

## 1) IDENTIFICATION OF PRODUCT:

USE: Printing ink for Inkjet application:

RANGE: COLOR+ KPS

PRODUCT CODE:

KPS004, KPS052, KPS135, KPS215, QUI016

MANUFACTURER / SUPPLIER:

FUJIFILM Sericol India Pvt. Ltd.

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INFORMATION DEPARTMENT:

Technical Department: +91 2137 392525 / 392523

## 2) COMPOSITION / DATA ON COMPONENTS:

CHEMICAL CHARACTERIZATION DESCRIPTION:

Mixture of substances listed below with no hazards additions.

DANGEROUS COMPONENTS:

CAS: 112-07-2 2-butoxyethyl acetate  
 EC Number: 203-933-3

Xn;R 20/21

0-90%

CAS:96-48-0 Dihydrofuran-2(3H)-one  
 EINECS: 202-509-5

Xn; R 40

0-20%

## 3) HAZARDS IDENTIFICATION:

HAZARD DESCRIPTION :

Xn Harmful

Information pertaining to particular dangers for man and environment R 20/21 Harmful by inhalation and in contact with skin.

CLASSIFICATION SYSTEM:

The classification was made according to the latest editions of the EU-lists, and expanded by company and literature data.

ADDITIONAL INFORMATION:

Exposure to component solvent vapours above the occupational exposure limit, stated in Section 8, may result in adverse health effects such as mucous membrane and respiratory system irritation, adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Organic solvents should not be used for hand cleaning as this may lead to absorption through the skin, skin irritation or dermatitis.

## 4) FIRST AID MEASURES:

GENERAL INFORMATION:

Never make an unconscious person vomit or drink fluids.  
 Immediately remove any clothing soiled by the product.

INHALED

Supply fresh air; If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice.

SWALLOWED

Drink copious amounts of water and provide fresh air. Call for a doctor immediately.

## MATERIAL SAFETY DATA SHEET

According to 91/155 EC

Printing Date: 17/03/2016

Reviewed on: 17/03/2016

Range: COLOR+ KPS

## AFTER EYE CONTACT

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Then consult a doctor.

## AFTER SKIN CONTACT

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water & immediately wash with soap.
- If skin irritation continues, consult a doctor.

**5) FIRE FIGHTING MEASURES:**

## SUITABLE EXTINGUISHING AGENTS

Co<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents water with full jet.

Special hazards caused by the material, its products of combustion or resulting gases:

In case of fire, the following can be released:

Carbon monoxide (CO)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

## PROTECTIVE EQUIPMENT:

Wear self-contained breathing apparatus.

## ADDITIONAL INFORMATION:

Cool endangered containers with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

**6) ACCIDENTAL RELEASE MEASURES:**

## PERSON-RELATED SAFETY PRECAUTIONS:

Wear protective equipment. Keep unprotected personnel away.

Ensure adequate ventilation, keep away from ignition sources.

## MEASURES FOR ENVIRONMENTAL PROTECTION:

Prevent seepage into sewage system, work pits and cellars.

Do not allow product to reach sewage system or any water course.

Inform respective authorities if seepage into water course or sewage system occurs.

Do not allow to enter sewers / surface or ground water.

## MEASURES FOR CLEANING / COLLECTING:

Absorb with liquid-binding material (sand, diatomaceous earth, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to section 13.

**7) HANDLING AND STORAGE:**

## INFORMATION FOR SAFE HANDLING:

Store in cool, dry place in tightly sealed containers.

Keep away from heat and direct sunlight.

Ensure good ventilation and extraction at the workplace.

Also ensure interior ventilation, especially at floor level. (Fumes are heavier than air)

Information about protection against explosions and fires:

Keep ignition sources away – Do not smoke.

## STORAGE:

Information about storage in one common storage facility:

Do not store together with oxidizing and acidic materials.

Do not store together with alkalis (caustic solutions).

Further information about storage conditions: Protect from heat and direct sunlight.

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**8) EXPOSURE CONTROLS AND PERSONAL PROTECTION:****GENERAL PROTECTIVE AND HYGIENIC MEASURES:**

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

**BREATHING EQUIPMENT:**

Not necessary if room is well ventilated.

**PROTECTION OF HANDS:**

Protective gloves

**EYE PROTECTION:**

Safety glasses with side shields; or as required

**BODY PROTECTION:**

Protective work clothing.

**OTHER INFORMATION:**

Ensure there is ready access to an eyewash unit and emergency shower.

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 particulate or solvent vapours below the occupational exposure limit stated, then suitable respiratory protection must be worn as a temporary measure and is specified below.

Avoid inhaling fumes / vapour.

**COMPONENTS WITH LIMIT VALUES THAT REQUIRE MONITORING AT THE WORKPLACE:**

112-07-2 2-butoxyethyl acetate  
TWA value 20ppm (ACGIHTLV)

**9) PHYSICAL AND CHEMICAL PROPERTIES :**

Form	:	Fluid
Colour	:	According to product specification
Odour	:	Characteristic
Change in condition	:	Value / Range Unit Method
Melting point/Melting range	:	Undetermined
Boiling point/Boiling range	:	153°C
Flash point	:	>64°C
Ignition temperature	:	Not available
Self igniting	:	Product is not self-igniting.
Danger of explosion	:	Product is not explosive. However, Formation of explosion air/vapour Mixtures is possible
Vapour pressure at 20°C	:	5.0 hPa
Density at 20°C	:	0.930-0.960 g/cm³
Water	:	Not miscible or difficult to mix
Solvent content	:	80-100%
Organic solvents	:	80-100%

**10) STABILITY AND REACTIVITY:**

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Stable until: 50°C Under normal condition product is stable

**11) TOXICOLOGICAL INFORMATION:****ACUTE TOXICITY:**

112-07-2 2-butoxyethyl acetate

Oral Ld50 1880 mg/kg (rat)

Dermal Ld50 1500 mg/kg (rabbit)

## MATERIAL SAFETY DATA SHEET

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Printing Date: 17/03/2016

Reviewed on: 17/03/2016

Range: COLOR+ KPS

96-48-0 Dihydrofuran-2(3H)-one

Oral rat : LD50 =1540 mg/kg

Inhalation rat :LC50 =&gt;5100 mg/m3/4H

Oral mouse : LD50 = 1460 mg/kg

Dermal, guinea pig : Ld50=&gt; 5 gm/kg

Draize test, rabbit, skin : 500 uL severe

## PRIMARY IRRITANT EFFECT :

On the eye	:	Irritant effect
On the skin	:	Irritant effect
Sensitization	:	No sensitizing effects known.
Additional toxicological information	:	Harmful

**12) ECOLOGICAL INFORMATION:**

## GENERAL NOTES:

Do not allow product to reach ground water, water course of sewage system.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Avoid release to the environment.

**13) DISPOSAL CONSIDERATIONS:**

## PRODUCT

## RECOMMENDATION:

Must not be disposed together with household rubbish.

Do not allow product to reach sewage system.

## RECOMMENDATION:

Dispose of product according to official regulations.

**14) TRANSPORT INFORMATION:**

## Land transport ADR / RID (cross – border)

ADR / RID class	:	Not Applicable
Item	:	NA
UN-Number	:	NA
Maritime transport IMDG	:	
IMDG Class	:	NA
Packaging group	:	NA
EMS Number	:	NA
MFAG	:	NA
Marine Pollutant	:	NA
Air transport ICAO-TI and IATA – DGR	:	
ICAO / IATA Class	:	Non-hazardous
UN / ID Number	:	NA
Packaging group	:	NA
Proper shipping name	:	

**15) REGULATORY INFORMATION:**

## HAZARD-DETERMINING COMPONENTS :

2-butoxyethyl acetate

Code letter of hazard designation of product : Xn Harmful

**16) OTHER INFORMATION:**

## INFORMATION:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

## RELEVANT R-PHRASES:

10 Flammable. 20 Harmful by inhalation. 20/21 Harmful by inhalation and in contact with skin.

## RECOMMENDED RESTRICTION OF USE:

The product should not be used for any purpose other than that specified in Section 1.

## DEPARTMENT ISSUING MSDS :

Technical Department - Fujifilm Sericol India Pvt.Ltd.