



COLOR INK PP PAMC

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier: COLOR INK PP PAMC

1.2. Relevant identified uses of Printing ink. the substance or mixture and ERC: 11a, 2, 5, 8c

uses advised against: PROC: 110, 2, 3, 5, 8a,

8b, 9 PC: 18

1.3. Details of the supplier of the | Ichemco srl

safety data sheet: via 11 Settembre, 5

20012 Cuggiono (MI)

Italy

Email address of the competent safety@ichemco.it

person:

1.4. Emergency telephone 24hrs, UK: 844 892 0111; EU: +32 3 575 55 55

number:

Further information obtainable Product safety department

from

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with Regulation (EC) No. 1272/2008 (CLP)

Flam. Liq. 2;H225 Highly flammable liquid and vapour.

Skin Irrit. 2;H315 Causes skin irritation.

Eye Dam. 1;H318 Causes serious eye damage.

STOT SE 3;H336 May cause drowsiness or dizziness.

Aquatic Acute 1;H400 Very toxic to aquatic life.

Aquatic Chronic 1;H410 Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictograms:









GHS02

GHS05

GHS07

GHS09

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Signal word:

Danger

Hazard statements: H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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Precautionary statements: P210 Keep away from heat/sparks/open flames/hot surfaces. - No

smoking.

P264 Wash thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face

protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or

doctor/physician.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position

comfortable for breathing.

P370+P378 In case of fire: Use suitable media (see MSDS for instruction) for

extinction.

Contains: Isobutyl-alcohol - Heptane [and isomers] - Octane [and isomers] - 2-Propanol

2.3. Other hazards: On the basis of available data, the product does not contain PBT or vPvB

substances in quantities \geq 0.1%.

The product does not contain substances having properties of interference with the

endocrine system in a concentration \geq 0.1%.

SECTION 3: Composition/information on ingredients

3.1. Substances

n. a.

3.2. Mixtures

CAS	EINECS	Registration n.	Denomination	Content	Classification(*)
67-63-0	200-661-7	01-2119457558-25	2-Propanol	20 - 25%	Eye Irrit. 2; H319
					Flam. Liq. 2; H225
					STOT SE 3; H336
				LD50/dermal = 13	3900 mg/kg
				LD50/oral = 5840	mg/kg
142-82-5	205-563-8	01-2119457603-38	Heptane [and isomers]	15 - 20%	Aquatic Acute 1; H400
					Aquatic Chronic 1; H410
					Asp. Tox. 1; H304
					Flam. Liq. 2; H225
					Skin Irrit. 2; H315
					STOT SE 3; H336
78-83-1	201-148-0	01-2119484609-23	Isobutyl-alcohol	5 - 10%	Eye Dam. 1; H318
			2-methylpropan-1-ol		Flam. Liq. 3; H226
			Isobutanol		Skin Irrit. 2; H315
					STOT SE 3; H335
					STOT SE 3; H336
111-65-9	203-892-1	01-2119463939-19	Octane [and isomers]	4 - 4.5%	Aquatic Acute 1; H400
					Aquatic Chronic 1; H410
					Asp. Tox. 1; H304
					Flam. Liq. 2; H225
					Skin Irrit. 2; H315
					STOT SE 3; H336

SECTION 4: First aid measures

4.1. Description of first aid If you feel unwell, seek medical advice. Take off immediately all contaminated

measures: clothing.

Inhalation: Move affected person to fresh air. Seek medical advise.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing. Get medical advice.

Skin contact: Wash immediately with large amounts of water. Remove contemned clothing. If

irritation persists, seek medical advice.

Ingestion: Consult physician or poison control center immediately. Do not induce vomiting if

not asked by the physician. Do not give anything orally without medical

authorization if subject is unconscious.

4.2. Most important symptoms n. a. and effects, both acute and

delayed:

4.3. Indication of any immediate n. a. medical attention and special

treatment needed:

SECTION 5: Firefighting measures

5.1. Extinguishing media: Foam, dry chemical powder, carbon dioxide (CO2).

Extinguishing media which must Water Fire Extinguishers.

not be used:

5.2. Special hazards arising from High temperature may liberate dangerous gases

the substance or mixture:

5.3. Advice for firefighters: Independent apparatus for respiratory protection.

Recommendations: Do not use water jets. If possible, take away any dangerous containers. Do not stay

in the direction of the bottoms of containers. Cool the containers with spray water from a safe position. Fire-fighters must wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

Stop the outpouring, if possible without hazard. Circumscribe the loss and remove it by absorbing on dry sand or other inert materials. Remove any possible source of ignition. Control vapours with spray water. Do not smoke. Avoid contact. If the product has contaminated soil or waters, inform public authorities.

6.1. Personal precautions, Wear gloves, protective clothing, safety goggles, boots, and protection for the protective equipment and respiratory (breathing apparatus). Eliminate all unguarded flames and possible emergency procedures: sources of ignition. Do not smoke. Move out of danger unprotected and

unauthorized persons.

6.2. Environmental precautions: Prevent spillage of the material into sewers, groundwater and surface waters.

6.3. Methods and material for Stop the outpouring, if possible without hazard. Circumscribe the loss and remove it containment and cleaning up: by absorbing on dry sand or other inert materials.

6.4. Reference to other sections: Please also refer to Sections 8 and 13.

SECTION 7: Handling and storage

Avoid flames and radiant heating. This product must be stored, handled and used in hygienic and safe way, according to current regulations.

7.1. Precautions for safe General ventilation is required. Local ventilation is recommended. Do not breathe handling: vapour. Avoid skin and eye contact.



Advice on general occupational (a) not to eat, drink and smoke in work areas;

- hygiene: (b) to wash hands after use; and
 - (c) to remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, Store the product in fresh, ventilated areas, separated from heating sources. Floor including any incompatibilities: must not be flammable, must be impermeable and must prevent pouring to the

outside. Electric plant must comply to current regulations.

7.3. Specific end use(s): Nothing special to note about specific uses.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters:

Substance:	TLW-TWA		STEL	
	ppm	mg/m³	ppm	mg/m³
sobutyl-alcohol	50	152		
Heptane [and isomers]	400	1640	500	2050
Octane [and isomers]	300	1401	375	2331
2-Propanol	200	492	400	983

2-Propanol: AGW (Germany) TWA/8h: 500 mg/m3; 200 ppm - STEL/15 min: 1000 mg/m3; 400

MAK (Germany) TWA/8h: 500 mg/m3; 200 ppm - STEL/15 min: 1000 mg/m3; 400

VLA (Spain) TWA/8h: 500 mg/m3; 200 ppm - STEL/15 min: 1000 mg/m3; 400 ppm VLEP (France) STEL/15 min: 980 mg/m3; 400 ppm

WEL (UK) TWA/8h: 999 mg/m3; 400 ppm - STEL/15 min: 1250 mg/m3; 500 ppm

Long term systemic effects/consumers/oral: 26 mg/kg; inhalation: 89 mg/m3; dermal: 319 mg/kg - Workers/inhalation: 500 mg/m3; dermal: 888 mg/kg

Microorganisms STP: 2251 mg/kg; soft water: 140.9 mg/kg; sediment (soft water): 552 mg/kg; sea water: 140.9 mg/kg; sediment (sea water): 552 mg/kg; terrestrial compartment: 28 mg/kg; nutritional chain (secondary poisoning): 160 mg/kg; water, intermittent release: 140.9 mg/kg

Heptane [and isomers]: TWA/8h: 2100 mg/m3 - 500 ppm MAK (Deu); 2085 mg/m3-500 ppm VLA (Esp); 1668 mg/m3-400 ppm VLEP (Fr); 2085 mg/m3-500 ppm WEL (GB); 2085 mg/m3-500 ppm TLV (It); 2085 mg/m3-500 ppm OEL (EU)

> STEL/15 min: 2100 mg/m3 - 500 ppm MAK (Deu); 2085 mg/m3-500 ppm VLEP (Fr)

DNEL Cronic systemic effects

people/oral >149 mg/kg; people/inhalation >447 mg/m3; people/dermal >149

workers/inhalation>2085 mg/m3; workers/dermal>300 mg/kg

Isobutyl-alcohol: TWA/8h: 310 mg/m3 - 100 ppm AGW (Deu); 310 mg/m3 - 100 ppm MAK (Deu); 154 mg/m3-50 ppm (VLA (Esp); 150 mg/m3-50 ppm VLEP (Fra); 154 mg/m3-50 ppm WEL (GB)

> STEL/15 min: 310 mg/m3 - 100 ppm AGW (Deu); 310 mg/m3 - 100 ppm MAK (Deu); 231 mg/m3-75 ppm WEL (GB)

Consumer, cronic systemic effects, oral exposure > 25 mg/kg; local cronic effects, inhalation > 55 mg/m3. Workers, local cronic effects, inhalation > 310 mg/m3 PNEC Reference values for

Microorganisms STP >10 mg/kg;soft water > 0,4 mg/kg; soft water sediments>1,52 mg/kg; sea water>0,04 mg/kg; sea water sediments>0,152 mg/kg; terrestrial compartment>0,0699; water, intermittent release > 11 mg/kg

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Octane [and isomers]: TWA/8h: 500 ppm MAK (Deu); 1420 mg/m3-300 ppm (VLA (Esp); 1450 mg/m3-

300 ppm WEL (GB). STEL/15min: 1000 mg/m3-400 ppm MAK (Deu)

DNEL

Cronic systemic effects, people, oral >699 mg/kg; inhalation >608 mg/m3; dermal >

699 mg/kg

Cronic systemic effects, workers, dermal >773 mg/kg

PNEC

soft water: 0.00001 g/l; sea water: 0.00001 g/l; intermittent release (soft water): 0.00004 g/l; STP: 0.00016 g/l; sediment (soft water): 4 mg/kg; sediment (sea water):

4 mg/kg; soil: 1.6 mg/kg

8.2. Exposure controls: Ensure good ventilation and local exhaustion of the working area, to keep vapours

concentration below the limits.

Appropriate engineering controls: Electric plant must comply to current regulations about use of flammable products.

Eye / face protection: Glasses with side protection ("cage" glasses) (EN166).

Hand protection: Neoprene or rubber gloves, suitable for chemical products (EN374).

Skin protection: Use full protective clothing for chemicals (working-dress, apron).

Protective shoes.

Respiratory protection: Get shelter in the event of development of vapours/aerosols. Use special filter code

A/P2.

Thermal hazards: n. a.

Environmental exposure controls: n. a.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties:

(a) Appearance: Coloured liquid.

(a) Physical state: Liquid. (b) Colour: n. a.

(c) Odour: As solvent.

(c) Odour threshold: n.a.

(d) Melting point: n.a.

Freezing point: n.a.

(e) Boiling point or initial boiling 82 °C (2-propanol)

point and boiling range:

(f) Flammability: n.a.

(g) Lower and upper explosion n.a.

limit:

(h) Flash point: -7 °C

(i) Auto-ignition temperature: n.a.

(j) Decomposition temperature: n.a.

(k) pH: n.a.

(I) Kinematic viscosity: n.a.

(m) Solubility: n.a.

(n) Partition coefficient n- n.a.

octanol/water (log value):

(o) Vapour pressure: n.a.

(p) Density and/or relative $0.7 - 1.1 \text{ g/cm}^3$

density:

(q) Relative vapour density: n.a.

(r) Particle characteristics: n.a.

(s) Explosive properties: n.a.



(t) Oxidising properties: n.a.

COV: 55 % (Direttiva 2010/75/CE)

Kinematic viscosity at 40°C: > 20.5 mm²/s

9.2. Other information: n. a.

SECTION 10: Stability and reactivity

No decomposition if correctly used.

10.1. Reactivity: There are no particular risks of reaction with other substances in normal conditions

of use.

10.2. Chemical stability: The material is stable in normal use and stocking conditions.

10.3. Possibility of hazardous Keep away from oxidants and strong acids.

reactions:

10.4. Conditions to avoid: Keep away from ignition source, heat, direct light.

10.5. Incompatible materials: n. a.

10.6. Hazardous decomposition Combustion can produce carbon oxides, toxic gases and fumes.

products:

SECTION 11: Toxicological information

11.1. Information on toxicological In the absence of experimental toxicological data on the mixture, the potential

effects: health risks of the product have been evaluated considering the properties of the

different composing substances. The concentration of each dangerous substance mentioned in section 3 is thus considered in assessing the toxicological effects

resulting from exposure to the product.

acute toxicity: Based on available data, classification criteria are not met

Isobutyl-alcohol

LD50/oral/rat > 2830 mg/kg LD50/dermal/rabbit > 2000 mg/kg

LC50/inhalation/rat: about 24.6 mg/l (4h)

Heptane [and isomers]

LD50/oral/rat>5000 mg/kg bw LC50/inhalation/rat/4h > 73.5 mg/l LD50/dermal/rabbit > 2000 mg/kg bw

Octane [and isomers]

LD50/oral/rat> 5000 mg/kg bw

LD50/dermal/rabbit > 2000 mg/kg bw

2-Propanol

LD50/oral/rat = 5840 mg/kg bw LD50/dermal/rabbit = 16.4 ml/kg bw LC50/inhalation/rat > 10000 ppm (6h)

irritation: It causes serious eye damage.

It causes skin irritation

Isobutyl-alcohol

It causes serious eye damage.

It causes skin irritation.

Irritating to respiratory system.

Octane [and isomers]

Skin irritation test on rabbit: irritating Eye irritation test on rabbit: not irritating

2-Propanol

It causes serious eye irritation.

corrosivity: Based on available data, classification criteria are not met sensitisation: Based on available data, classification criteria are not met.

Heptane [and isomers]

Guinea Pig Maximisation test (OECD 406): not sensitizing

Octane [and isomers]

OECD406 test on Guinea pig: not sensitising

repeated dose toxicity: Isobutyl-alcohol

Subacute oral toxicity

NOAEL/oral/rat > 1450 mg/kg bw day

Subacute inhalatory toxicity NOAEL/inhalation/rat ≥ 7,5 mg/l

carcinogenicity: 2-Propanol

NOAEC (carcinogenicity): 5000 ppm (rat)

mutagenicity: n. a.

toxicity for reproduction: 2-Propanol

NOAEL (C): 480 mg/kg bw/day (rabbit)

Information on likely routes of n. a.

exposure:

Symptoms related to the n. a. physical, chemical and toxicological characteristics: Delayed and immediate effects n. a. as well as chronic effects from short and long-term exposure:

Interactive effects: n. a.

11.2. Information on other The product does not contain substances having properties of interference with the

hazards: endocrine system in a concentration> = 0.1%.

SECTION 12: Ecological information

Prevent contamination of soil and surface waters. Avoid dispersion of material into soil, drains or surface waters. Avoid dispersion of residues into drains.

12.1. Toxicity: Isobutyl-alcohol

LC50/Pimephales promelas = 1430 mg/l (96h) EC50/Daphnia pulex = 1100 mg/l (48h)

EC50/pseudokirchneriella subcapitata = 1799 mg/l (72h)

Octane [and isomers]

NOELR/Oncorhynchus mykiss/28 d = 0.579 mg/l

EL50/Mytilus edulis/105 min = 0.12 mg/l EC50/Mytilus edilis/105 min = 24.6 mg/kg

EL50/pseudokirchneriella subcapitata/72h = 2084 mg/l

2-Propanol

LC50 (Pimephales promelas): 9640 mg/l (96h) EC50 (Daphnia magna): >10000 mg/l (24h) EC50 (Scenedesmus quadricauda): 1800 mg/l (7d)

12.2. Persistence and Isobutyl-alcohol

degradability: Biodegradation: 90% 14 d

Heptane [and isomers]

LL50/Oncorhynchus Mykiss/96 h = 5378 mg/l NOEL/Oncorhynchus Mykiss/28 d = 1284 mg/l

EC50/Daphnia magna/48h = 1.5 mg/l EL50/Daphnia magna/48 h = 3.9 mg/l

EL50/Daphnia magna/21d = 1.6 mg/l (OECD 211) EL50/Tetrahymena pyriformis/48h = 22.6 mg/l EL50/Pseudokirchneriella subcapitata/72h = 4.3 mg/l

2-Propanol

Easily biodegradable

BOD = 53% (Regulation (EC) No 440/2008, Annex C.5)

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12.3. Bioaccumulative potential: Isobutyl-alcohol

Partition coefficient: n-octanol/water = 1

Heptane [and isomers] Log Kow = 3,78 BCF = 552 (calculated)

2-Propanol

Log Pow = 0.05

12.4. Mobility in soil: n. a.

12.5. Results of PBT and vPvB Based on available data, the product does not contain any PBT or vPvB substances

assessment: in quantity higher than 0.1%.

12.6. Endocrine disrupting The product does not contain substances having properties of interference with the

properties: endocrine system in a concentration> = 0.1%.

12.7. Other adverse effects: The product does not contain substances listed in Regulation 2024/590/UE

(substances that deplete the ozone layer)

SECTION 13: Disposal considerations

13.1. Waste treatment methods: Incineration or disposal in accordance with legal regulations.

SECTION 14: Transport information

Transport only in accordance with ADR for road, RID for rail, IMDG for sea and ICAO for air transport.

14.1. UN number: 1210 - PRINTING INK, flammable (vapour pressure at 50 °C not more than 110 kPa)

14.2. UN proper shipping name: PRINTING INK

14.3. Transport hazard class(es): 3 - Flammable liquids

14.4. Packing group: II - Substances presenting medium danger

Classification Code (ADR 2.2): F1 - Flammable liquids having a flash-point of or below 60 $^{\circ}\text{C}$

Mixed packing provisions MP19 - May - in quantities not exceeding 5 litres per inner packaging - be packed

(4.1.10): together in a combination packaging conforming to 6.1.4.21:

- with goods of the same class covered by other classification codes or with goods

of other classes, when mixed packing is also permitted for these; or

- with goods which are not subject to the requirements of ADR, provided they do

not react dangerously with one another.

Transport category (1.1.3.6): 2

Hazard identification No. 33 - highly flammable liquid (flash-point below 23 °C)

(5.3.2.3):

14.5. Environmental hazards: n. a.

Marine pollutant: Heptane [and isomers], Octane [and isomers]

14.6. Special precautions for $\ \ n.\ a.$

ıser

14.7. Transport in bulk according to Annex II of MARPOL73/78

and the IBC Code:

IMDG Page: 3272-1 IMDG EMS: F-E S-D IMDG MFAG: 311

Danger labels:



33

1210

SECTION 15: Regulatory information

Information contained in this SDS is based on the present state of our knowledge and on Regulation (EC) No 1907/2006 of the European Parliament and subsequent updates.

15.1. Safety, health and Restrictions related to the product or substances contained according to Annex XVII environmental of Regulation (EC) 1907/2006 (REACH) and subsequent amendments:

regulations/legislation specific for the substance or mixture: Restrictions related to the product: 3, 40, 75

Directive 2012/18/EU: P5c, E1

WGK = 2

15.2. Chemical safety Not applicable assessment:

SECTION 16: Other information

Classification and procedure used:

Flam Lig 2 H225 calculation method Eye Dam 1 H318 calculation method H315 calculation method Skin Irr 2 STOT SE 3 H336 calculation method Agua Ac 1 H400 calculation method Aqua Chr 1 H410 calculation method

Modified sections: 2.11.12.15.16

STIR ACCURATELY BEFORE USE

Full text of H phrases listed in Section 3:

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H318 Causes serious eve damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H410 Very toxic to aquatic life with long lasting effects.

Glossary / List of acronyms

(STOT) RE - Repeated Exposure

(STOT) SE - Single Exposure

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road

CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

CMR - Carcinogen, Mutagen, or Reproductive Toxicant

DNEL - Derived No Effect Level

ECHA - European Chemicals Agency

EINECS - European Inventory of Existing Commercial Substances

GHS - Globally Harmonized System

IATA - International Air Transport Association

ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG - International Maritime Dangerous Goods

Kow - octanol-water partition coefficient

PBT - Persistent, Bioaccumulative and Toxic substance

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail

SDS - Safety data sheet

STOT - Specific Target Organ Toxicity

SVHC - Substances of Very High Concern

UFI - Unique Formula Identifier

vPvB - Very Persistent and Very Bioaccumulative

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Users' working conditions are beyond our knowledge and control. The product is not to be used for other purposes than those specified under section 1 without first obtaining written handling instruction. It is always the responsibility of the user to take all necessary steps in order to fulfil the demand laid down in the local rules and legislation. The information in this SDS is meant as a description of the safety requirements of our product: it is not to be considered as a guarantee of the products' properties.

The information in this Safety Data Sheet is provided in accordance with the requirements of the Chemicals (Hazard Information and Packaging) regulations.

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