COLOR INK PVC

SAFETY DATA SHEET

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

1.1. Product identifier: COLOR INK PVC

UFI: 2R70-G0US-500C-63K0

1.2. Relevant identified uses of the substance or mixture and uses advised against: Water based printing ink.
Industrial use
ERC: 11a, 2, 5, 8c
PROC: 19, 2, 3, 5, 8a, 8b, 9
PC: 18

1.3. Details of the supplier of the safety data sheet: Ichemco srl
via 11 Settembre, 5
20012 Cuggiono (MI)
Italy

Email address of the competent person: safety@ichemco.it

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

Further information obtainable from: Product safety department

SECTION 2: Hazards identification

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

2.1. Classification of the substance or mixture

Flam. Liq. 2;H225	Highly flammable liquid and vapour.
Eye Irrit. 2;H319	Causes serious eye irritation.
STOT SE 3;H336	May cause drowsiness or dizziness.

2.2. Label elements

Hazard pictograms:

GHS02 GHS07

Signal word:	Danger	
Hazard 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.
	P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P312	Call a POISON CENTER or doctor/physician if you feel unwell.
	P370+P378	In case of fire: extinguish with suitable means reported in the safety data sheet.
Contains:	Ethyl methyl ketone - 2-methoxy-1-methylethyl acetate	
2.3. Other hazards:	On the basis of available data, the product does not contain PBT or vPvB substances in quantities ≥ 0.1%. The product does not contain substances having properties of interference with the endocrine system in a concentration ≥ 0.1%.	

SECTION 3: Composition/information on ingredients

3.1. Substances

n. a.

3.2. Mixtures

Substances presenting a health or environmental hazard within the meaning of directives 67/548/EEC, 1999/45/EC and 1272/2008 (CLP):

Denomination	Identifiers	Content	Classification(*)
Ethyl methyl ketone *Butanone*	CAS: 78-93-3 EC Index (EINECS): 201-159-0	50 - 70%	Eye Irrit. 2; H319 Flam. Liq. 2; H225 STOT SE 3; H336 EUH066
2-methoxy-1-methylethyl acetate	CAS: 108-65-6 EC Index (EINECS): 203-603-9	7 - 8%	Flam. Liq. 3; H226 STOT SE 3; H336

(*) For full text of the H- and EUH-phrases, see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures:	If you feel unwell, seek medical advice. Take off immediately all contaminated 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. If eye irritation persists, 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 and effects, both acute and delayed:	n. a.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media:	Foam, dry chemical powder, carbon dioxide (CO2).
Extinguishing media which must not be used:	Water Fire Extinguishers.
5.2. Special hazards arising from the substance or mixture:	Vapours are heavier than air and can travel along ground to remote ignition sources.
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, protective equipment and emergency procedures:	Wear gloves, protective clothing, safety goggles, boots, and protection for the respiratory (breathing apparatus). Eliminate all unguarded flames and possible sources of ignition. Do not smoke. Move out of danger unprotected and unauthorized persons.
6.2. Environmental precautions:	If the product has contaminated soil or waters, inform public authorities.
6.3. Methods and material for containment and cleaning up:	Stop the outpouring, if possible without hazard. Circumscribe the loss and remove it 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 handling:	General ventilation is required. Local ventilation is recommended. Do not breathe vapour. Avoid skin and eye contact.
Advice on general occupational hygiene:	(a) not to eat, drink and smoke in work areas; (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, including any incompatibilities:	Store the product in fresh, ventilated areas, separated from heating sources. Floor must not be flammable, must be impermeable and must prevent pouring to the outside. Electric plant must comply to current regulations. Storage class TRGS 510 (Germany): 3

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
Ethyl methyl ketone	200	600	300	900
2-methoxy-1-methylethyl acetate	50	275	100	550

2-methoxy-1-methylethyl acetate:
AGW (Deu) 270 mg/m3-50 ppm (TWA/8h); 270 mg/m3-50 ppm (STEL/15min)
MAK (Deu) 270 mg/m3-50 ppm (TWA/8h); 270 mg/m3-50 ppm (STEL/15min)
VLA (Esp) 275 mg/m3-50 ppm (TWA/8h); 550 mg/m3-100 ppm (STEL/15min)
VLEP (Fra) 275 mg/m3-50 ppm (TWA/8h); 550 mg/m3-100 ppm (STEL/15min)
WEL (Grb) 274 mg/m3-50 ppm (TWA/8h); 548 mg/m3-100 ppm (STEL/15min)
OEL (EU) 275 mg/m3-50 ppm (TWA/8h); 550 mg/m3-100 ppm (STEL/15min)
DNEL
Cronic systemic effects, people, oral>1,67 mg/kg; inhalation >33 mg/kg; dermal>54,8 mg/kg
Cronic systemic effects, workers, inhalation >275 mg/m3; dermal >153,5 mg/kg
PNEC
Soft water >0,635 mg/kg; sea water >0,0635 mg/kg; soft water sediment >3,29 mg/kg; water, intermittent release >6,35 mg/kg; sea water sediment>0,329 mg/kg, STP microorganisms >100 mg/kg; terrestrial compartment > 0,29 mg/kg

Ethyl methyl ketone:
TLV-ACGIH 500 mg/m3-200 ppm (TWA/8h); 885 mg/m3-300 ppm (STEL/15 min)
AGW (Deu) 600 mg/m3-200 ppm (TWA/8h); 600 mg/m3-200 ppm (STEL/15min)
MAK (Deu) 600 mg/m3-200 ppm (TWA/8h); 600 mg/m3-200 ppm (STEL/15min)
VLA (Esp) 600 mg/m3-200 ppm (TWA/8h); 900 mg/m3-300 ppm (STEL/15min)
VLEP (Fra) 600 mg/m3-200 ppm (TWA/8h); 900 mg/m3-300 ppm (STEL/15min)
WEL (Grb) 600 mg/m3-200 ppm (TWA/8h); 899 mg/m3-300 ppm (STEL/15min)
OEL (EU) 275 mg/m3-50 ppm (TWA/8h); 550 mg/m3-100 ppm (STEL/15min)

DNEL - Long term systemic effects
Dermal/Workers:1161 mg/kg; Inhalation/Workers:600 mg/m3; Dermal/People:412 mg/kg; Inhalation/People: 106 mg/m3;Oral/People:31 mg/kg
PNEC (EC)
Sediment (soft water):284,74 mg/kg; Sediment (sea water):284,7 mg/kg; Soft water: 55,8 mg/l; Occasional emission: 55,8 mg/l; terrestrial compartment > 22,5 mg/kg; food chian (secondary poisoning) > 1000 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). Eye washing bottle with fresh water
Hand protection:	Wear suitable gloves during handling.
Skin protection:	Use full protective clothing for chemicals (working-dress, apron). Protective shoes.
Respiratory protection:	If the product is sprayed or if there is a high vapour concentration, use masks with filter for organic vapours (brown A series).
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 point and boiling range:	> 35 °C
(f) Flammability:	n.a.
(g) Lower and upper explosion limit:	n.a.
(h) Flash point:	-6 °C
(i) Auto-ignition temperature:	n.a.
(j) Decomposition temperature:	n.a.
(k) pH:	n.a.
(l) Kinematic viscosity:	n.a.
(m) Solubility:	n.a.
(n) Partition coefficient n-octanol/water (log value):	n.a.
(o) Vapour pressure:	< 1.1 mbar (@50°C)
(p) Density and/or relative density:	0.7 – 1.1 g/cm^3
(q) Relative vapour density:	n.a.
(r) Particle characteristics:	n.a.
(s) Explosive properties:	n.a.
(t) Oxidising properties:	n.a.
COV:	63.4 % (EC Directive 2010/75/EC)
9.2. Other information:	n. a.

SECTION 10: Stability and reactivity

The material is stable in normal use and stocking conditions. It can release carbon oxides and vapours that can be harmful to health if taken to hot temperatures or in case of fire. It reacts exothermically with sulfuric acid. Reacts violently with light metals (aluminium) and strong oxidants.

10.1. Reactivity: n. a.

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

10.3. Possibility of hazardous reactions: Keep away from oxidants, alkalis and strong acids to avoid exothermal reactions.

10.4. Conditions to avoid: Do not overheat. Avoid electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials: Strongly oxidizing substances.

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects: Product is irritant if inhaled and by eye contact. Ingestion might produce disturbs to digestive system with nausea, vomiting and stomachaches. If inhaled, congestion, irritation, cough and breathing difficulties might arise.

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

Ethyl methyl ketone
LC50/inhalation/rat>5000 ppm
LD50/oral/rat > 2000 mg/kg
LD50/dermal/rabbit> 5000 mg/kg
If swallowed, material may be aspirated into the lungs and cause chemical pneumonitis.
2-methoxy-1-methylethyl acetate
LD50/oral/rat = 8530 mg/kg
LD50/dermal/rat > 5000 mg/kg

irritation: Irritating for the eyes.
Dermatitis and dryness may occur after repeated skin contact.

Ethyl methyl ketone
Skin irritation/OECD404/test on rat: not irritating
Eye irritation/OECD405/test on rabbit's eyes: irritating
2-methoxy-1-methylethyl acetate
Skin irritation test on rabbit: not irritating (OECD404)
Eye irritation test on rabbit: not irritating (OECD405)

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

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

2-methoxy-1-methylethyl acetate
Skin sentitisation test on Giunea pig: not sensitising (OECD406)

repeated dose toxicity: n. a.

carcinogenicity: n. a.

mutagenicity: n. a.

toxicity for reproduction: n. a.

Information on likely routes of exposure: n. a.

Symptoms related to the physical, chemical and toxicological characteristics: n. a.

Delayed and immediate effects as well as chronic effects from short and long-term exposure:	n. a.
Interactive effects:	n. a.
11.2. Information on other hazards:	The product does not contain substances having properties of interference with the 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:

Ethyl methyl ketone
EC50/Daphnia magna/48h = 308 mg/l
EC50/Scenedesmus subspicatus/96h = 2029 mg/l
LC50/Pimephales promelas/96h = 2993 mg/l
2-methoxy-1-methylethyl acetate
LC100/Oncorhynchus mykiss/96 h: 180 mg/l (OECD203)
LC50/Oryzias latipes/14d: 63.5 mg/l (OECD204)
LC50/Daphnia magna/48h > 500 mg/l (EU Method C2)
EC50/Daphnia magna/21d > 100 mg/l (OECD211)
EC50/Pseudokirchneriella subcapitata/96h > 1000 mg/l (OECD201)

12.2. Persistence and degradability:

Ethyl methyl ketone
Easily biodegradable
2-methoxy-1-methylethyl acetate
Log Pow= 1,2

12.3. Bioaccumulative potential:

Ethyl methyl ketone
Shortly bioaccumulative
Log Pow = 0.3

12.4. Mobility in soil:	n. a.
12.5. Results of PBT and vPvB assessment:	Based on available data, the product does not contain any PBT or vPvB substances in quantity higher than 0.1%.
12.6. Endocrine disrupting properties:	The product does not contain substances having properties of interference with the 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:	Recover if possible. This material should be incinerated in authorized plants or under controlled conditions. Proceed in conformity with local and national regulation.

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 °C
Mixed packing provisions (4.1.10):	MP19 - May - in quantities not exceeding 5 litres per inner packaging - be packed 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. (5.3.2.3):	33 - highly flammable liquid (flash-point below 23 °C)
14.5. Environmental hazards:	n. a.
Marine pollutant:	No
14.6. Special precautions for user:	n. a.
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 environmental regulations/legislation specific for the substance or mixture: Restrictions related to the product or substances contained according to Annex XVII of Regulation (EC) 1907/2006 (REACH) and subsequent amendments: 3, 40, 75

Directive 2012/18/EU: P5c

Synthetic polymer microparticles

The synthetic polymer microparticles supplied are subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006.

No SPMs are present in relevant quantities

15.2. Chemical safety assessment: Not applicable

SECTION 16: Other information

This document was written by a trained technician.

Modified sections: 1,2,3,11,12,15,16

STIR ACCURATELY BEFORE USE

Full text of H phrases listed in Section 3:

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications reported in section 3:

Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquid
STOT SE	Specific target organ toxicity - single exposure

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

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.