



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

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.

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:

EUH066 Repeated exposure may cause skin dryness or cracking.

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

ICHEMCO srl

via 11 Settembre, 5

20012 Cuggiono (MI) - ITALY

Phone +39 02 97243.1 - Fax +39 02 97243.200 - email: info@ichemco.it - internet: www.ichemco.it

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.

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: Use suitable media (see MSDS for instruction) for extinction.

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 $\geq 0.1\%$.
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

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

CAS	EINECS	Registration n.	Denomination	Content	Classification(*)
78-93-3	201-159-0	01-2119457290-43	Ethyl methyl ketone <i>Butanone</i>	50 - 70%	Eye Irrit. 2; H319 Flam. Liq. 2; H225 STOT SE 3; H336
108-65-6	203-603-9	01-2119475791-29	2-methoxy-1-methylethyl acetate	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 advice.

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 contaminated 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/m ³	ppm	mg/m ³
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
 Chronic systemic effects, people, oral >1,67 mg/kg; inhalation >33 mg/kg;
 dermal >54,8 mg/kg
 Chronic 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 chain (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 (@50°C) mbar
 (p) Density and/or relative density: 0.7 - 1.1 g/cm³
 (q) Relative vapour density: n.a.
 (r) Particle characteristics: 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 sensitisation test on Guinea 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 (EC) 1005/2009 (substances that deplete the ozone layer)

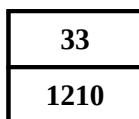
SECTION 13: Disposal considerations

- 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:



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
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.

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.