COLOR INK PP NITRO

SAFETY DATA SHEET

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

1.1. Product identifier: COLOR INK PP NITRO

UFI: 2170-F0AK-Q00D-WCWG

1.2. Relevant identified uses of the substance or mixture and uses advised against: Printing ink.
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.

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: 1-methoxypropan-2-ol - Ethyl acetate - Ethyl-alcohol (substance with community exposure limit) - Ethyl methyl ketone

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):

CAS	EINECS	Registration n.	Denomination	Content	Classification(*)
64-17-5	200-578-6	01-2119457610-43	Ethyl-alcohol (substance with community exposure limit) *Ethanol*	30 - 45%	Eye Irrit. 2; H319 Flam. Liq. 2; H225
141-78-6	205-500-4	01-2119475103-46	Ethyl acetate	14 - 19% EUH066 LD50/dermal >2000 mg/kg LD50/oral = 4934 mg/kg	Eye Irrit. 2; H319 Flam. Liq. 2; H225 STOT SE 3; H336
107-98-2	203-539-1	01-2119457435-35	1-methoxypropan-2-ol	9 - 14%	Flam. Liq. 3; H226 STOT SE 3; H336
78-93-3	201-159-0	01-2119457290-43	Ethyl methyl ketone *Butanone*	0.5 - 0.6%	Eye Irrit. 2; H319 Flam. Liq. 2; H225 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:	Equip cleanup crew with proper protection. Ventilate area. Evacuate unnecessary personnel.
6.2. Environmental precautions:	Prevent spillage of the material into sewers, groundwater and surface waters.
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:	Provide good ventilation in process area to prevent formation of vapours. Before manipulating the product, be sure to have read carefully and well understood all the necessary safety measurements. Wash hand and other exposed areas with mild soap and water before eat, drink or smoke and before leaving work.
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.
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
1-methoxypropan-2-ol	100	375	150	568
Ethyl acetate	400	1400	400	1440
Ethyl-alcohol (substance with community exposure limit)	1000	1881		
Ethyl methyl ketone	200	600	300	900

Ethyl acetate: AGW (Germany) TWA/8h: 1500 mg/m3; 400 ppm – STEL/15 min: 3000 mg/m3; 800 ppm
MAK (Germany)) TWA/8h: 1500 mg/m3; 400 ppm – STEL/15 min: 3000 mg/m3; 800 ppm
VLA (Spain) TWA/8h: 1460 mg/m3; 400 ppm
VLEP (France) TWA/8h: 1400 mg/m3; 400 ppm
WEL (UK) TWA/8 h 200 ppm - STEL/15 min: 400 ppm
DNEL
Short term systemic effects
Workers, Inhalatory = 1468 mg/m3; People, Inhalatory = 734 mg/m3
Short term local effects
Workers, Inhalatory = 1468 mg/m3; People, inhialatory = 734 mg/m3
Long term systemic effects
People, Oral = 4.5 mg/kg; People, Inhalatory = 367 mg/m3; People, Dermal = 37 mg/kg; Workers, oral = 734 mg/m3; Workers, dermal = 63 mg/kg; Workers, Inhalatory = 734 mg/m3
PNEC
Soft water: 0,24 mg/l; Sea water: 0,02 mg/l; Wastewater Treatment plant: 650 mg/l; Sediment(soft water): 1,15 mg/kg dw; Sediment (sea water): 0,115 mg/kg dw; Soil: 0,148 mg/kg dw; Secondary poisoning (oral): 0,2 g/kg

1-methoxypropan-2-ol: AGW (Germany) TWA/8h: 370 mg/m3; 100 ppm – STEL/15 min: 740 mg/m3; 200 ppm
MAK (Germany) TWA/8h: 370 mg/m3; 100 ppm – STEL/15 min: 740 mg/m3; 200 ppm
VLA (Spain) TWA/8h: 375 mg/m3; 100 ppm – STEL/15 min: 568 mg/m3; 150 ppm
VLEP (France) TWA/8h: 188 mg/m3; 50 ppm – STEL/15 min: 375 mg/m3; 10 ppm
WEL (UK) TWA/8h: 375 mg/m3; 100 ppm – STEL/15 min: 560 mg/m3; 150 ppm
OEL (EU) TWA/8h: 375 mg/m3; 100 ppm – STEL/15 min: 568 mg/m3; 150 ppm
DNEL
Acute local effects, inhalation, workers >553,6 mg/m3;
Cronic systemic effects: Oral, people >3.3 mg/kg; Inhalation, People >43.9 mg/m3; Dermal, People >18.1 mg/kg; Dermal, Workers >50.6 mg/kg; Inhalation, workers >369 mg/m3
PNEC
Soft water > 10 mg/kg; sea water> 1 mg/kg; Occasional issue > 100 mg/kg; Sediment (sea water)>5.2 mg/kg; Sediment (soft water)>100 mg/kg; Terrestrial compartment > 5.49 mg/kg

Ethyl-alcohol (substance with community exposure limit):	AGW (Germany) TWA/8h: 960 mg/m3; 500 ppm – STEL/15 min: 1920 mg/m3; 1000 ppm MAK (Germany) TWA/8h: 960 mg/m3; 500 ppm – STEL/15 min: 1920 mg/m3; 1000 ppm VLA (Spain) STEL/15 min: 1910 mg/m3; 1000 ppm VLEP (France) TWA/8h: 1900 mg/m3; 1000 ppm – STEL/15 min: 9500 mg/m3; 5000 ppm WEL (UK) TWA/8h: 1920 mg/m3; 1000 ppm DNEL Local effects/Short term/Inhalation Workers > 1900 mg/m3; Long term/repeated exposure/ Inhalatione Workers> 950 mg/m3; Short term/inhalation People > 950 mg/m3 Systemic effects/long term/dermal/Workersi> 343 mg/kg; long term/Inhalation people > 114 mg/m3; Long term/Dermal people > 206 mg/kg PNEC Soft water> 0.96 mg/l; Sea water> 0.79 mg/l; Soft water sediments> 3.6 mg/kg; Sea water sediments> 2.9 mg/kg; Soil > 0.63 mg/kg; Microorganisms SPT >709 mg/kg; nutritional chain (secondary poisoning)>720 mg/kg; water, intermittent release > 2.75 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:	Neoprene or rubber gloves, suitable for chemical products (EN374).
Skin protection:	Use full protective clothing for chemicals (working-dress, apron). Protective shoes.
Respiratory protection:	If the product is sprayed or if there is an high vapours concentration, use masks with filter for organic vapours (brown A serie).
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:	-4 (Ethylacetate) °C
(i) Auto-ignition temperature:	n.a.
(j) Decomposition temperature:	n.a.
(k) pH:	n.a.
(l) Kinematic viscosity:	n.a.
(m) Solubility:	immiscible
(n) Partition coefficient n-octanol/water (log value):	n.a.
(o) Vapour pressure:	n.a.
(p) Density and/or relative density:	0.7 - 1.2 g/cm^3
(q) Relative vapour density:	n.a.
(r) Particle characteristics:	n.a.
COV:	67.25 (Direttiva 1999/13/CE) %
9.2. Other information:	n. a.

SECTION 10: Stability and reactivity

No decomposition if correctly used. Avoid contact with 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:	n. a.
10.4. Conditions to avoid:	Keep away from ignition source, heat, direct light.
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:	In the absence of experimental toxicological data on the mixture, the potential 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

1-methoxypropan-2-ol
LD50/oral/rat = 4016 mg/kg
LD50/dermal/rabbit = 13000 mg/kg
LC50/inhalation/rat = 54,6 mg/l (4h)
LC0/inhalation/rat >7000 ppm/6h (OCSE403)
Ethyl acetate
LD50/oral/rat = 4934 mg/kg dw (OCSE401)
LD50/dermal/rabbit > 20000 mg/kg-dw
LCLo/Inhalation/rat > 22.5 mg/l (6h)
Ethyl-alcohol (substance with community exposure limit)
LC50/inhalation/rat = 124.7 mg/l (4h)
LD50/oral/rat> 2528 mg/kg bw
LD50/dermal/rabbit > 20000 ml/kg bw
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.

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

1-methoxypropan-2-ol
Skin irritation/test on rabbit: not irritating
Eye irritation/test on rabbit: not irritating
Ethyl acetate
OECD 404 Not irritating to skin (Test on rabbit)
OECD 405 Irritating to eyes (Test on rabbit)
Ethyl-alcohol (substance with community exposure limit)
Skin irritation on rabbit: not irritating
Ethyl methyl ketone
Skin irritation/OECD404/test on rat: not irritating
Eye irritation/OECD405/test on rabbit's eyes: irritating

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

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

1-methoxypropan-2-ol
Skin sensitization/test on Guinea pig: not skin sensitizer
Ethyl acetate
Not skin sensitising, Test on Guinea Pig: negative (OECD 406)
Ethyl-alcohol (substance with community exposure limit)
Skin sentisation on mouse: not sensitising

repeated dose toxicity: **1-methoxypropan-2-ol**
OECD 410 NOAEL/dermal/rabbit > 1000 mg/kg bw/day
OECD 413 NOAEL/inhalation/rat = 1000 ppm
Ethyl acetate
Repeated exposure may cause skin dryness or cracking
Subacute oral toxicity
NOAEL (C)/oral/rat = 900 mg/kg bw/day
Subacute inhalative toxicity
NOAEL (C)/inhalation/rat = 350 ppm

carcinogenicity: **1-methoxypropan-2-ol**
BMD10/mouse: 3000 ppm
NOAEL (fetal development)/rat: 1500 ppm OCSE 414
NOAEL (C)/rat: 300 ppm
Ethyl acetate
Unknown CMR effects

mutagenicity: n. a.

toxicity for reproduction:	**Ethyl acetate** Essay on reproductive toxicity after 1 generation NOAEL (C)/mouse = 13800 mg/kg bw/day Essay on reproductive toxicity after 2 generations NOAEL (C)/mouse < 20700 mg/kg bw/day
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:	**1-methoxypropan-2-ol** OECD201 LC50/Oncorhynchus mykiss/96h > 1000 mg/l EU MEthod C.2 EC0/Daphnia magna/48 h = 500 mg/l OECD201 EC50/Pseudokirchnerella subcapitata/96h > 1000 mg/l EC50/Pseudomonas putida/17h> 10000 mg/l **Ethyl acetate** LC50/Pimephales promelas/96h = 230 mg/l EC50/Daphnia magna/48h = 165 mg/l NOEC/Daphnia Pulex/48h = 2.4 mg/l NOEC/Scenedesmus subspicatus/72h > 100 mg/l EC50/Photobacterium phosphoreum/15 min = 5870 mg/l **Ethyl-alcohol (substance with community exposure limit)** EC10/chlorella vulgaris/4d = 675 mg/l EC50/photobacterium phosphoreum/15 min = 32.1 g/l LC50/ceriodaphnia dubia/48h = 5012 mg/l LC50/pimephales promelas/96 h = 15.3 g/l **Ethyl methyl ketone** EC50/Daphnia magna/48h = 308 mg/l EC50/Scenedesmus subspicatus/96h = 2029 mg/l LC50/Pimephales promelas/96h = 2993 mg/l
12.2. Persistence and degradability:	**1-methoxypropan-2-ol** Biodegradation/28d = 96% OECD301E **Ethyl acetate** Biodegradation (28d) = 79% (OECD301D) **Ethyl-alcohol (substance with community exposure limit)** Easily biodegradable **Ethyl methyl ketone** Easily biodegradable
12.3. Bioaccumulative potential:	**Ethyl acetate** Log Pow = 0.68 BCF = 30 **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: 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 °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

15.2. Chemical safety assessment: Not applicable

SECTION 16: Other information

Classification and procedure used
Flam Liq 2 H225 test data
Eye Irr 2A H319 calculation method
STOT SE 3 H226 calculation method

This document was written by a trained technician.

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

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.