

Safety Data Sheet

1. Identification of the substance / preparation and the Company

1.1 Identification of the substance or preparation

Product name SERIE PLT4

1.2 Use of the substance / preparation

Intended use Pad printing ink

1.3 Company identification

Name COMEC ITALIA SRL
Full address PIAZZALE DEL LAVORO 149
District and Country 21044 CAVARIA VA
ITALIA
Tel. 0331 219516
Fax 0331 216161

e-mail address of the competent person responsible for the Safety Data Sheet

info@comec-italia.it

Product distribution by EDGARDO BAGGINI

1.4 Emergency telephone

2. Hazards Identification

2.1 Substance/Preparation Classification

This product is dangerous under 67/548/EEC and 1999/45/EC directives and subsequent amendments. Therefore, this product requires a safety data sheet according to the Regulation (EC) 1907/2006 and subsequent amendments. Further information on health and/or environmental hazards can be found in sections 11 and 12 of this sheet.

Danger Symbols: Xn
R phrases: 10-20/21-36

2.2 Danger Identification

Because of its chemical-physical features, this product is graded as flammable (flash-point 21 °C or higher and 55 °C or lower).

HARMFUL BY INHALATION AND IN CONTACT WITH SKIN.
IRRITATING TO EYES.

3. Composition / Information on ingredients

Contains:

| Name | Concentration % (C) | Classification |
|--|---------------------|----------------|
| ALKYL PHENOLS OXYETHYLENE PHOSPHORIC ESTER | 2 <= C < 2,5 | Xi R36/38 |
| CAS No 51811-79-1 | | |

| | | | |
|--|----------------|----|-------------------|
| SOLVENT NAPHTA (PETROLEUM), HEAVY AROM CAS No 64742-94-5 CE No 265-198-5 Index No 649-424-00-3 | 3 <= C < 3,5 | Xn | R65 Note H 4 |
| 1-METHOXY-2-PROPANOL ACETATE CAS No 108-65-6 CE No 203-603-9 Index No 607-195-00-7 | 35 <= C < 37,5 | Xi | R10 R36 |
| 1-METHOXY-2-PROPANOL CAS No 107-98-2 CE No 203-539-1 Index No 603-064-00-3 | 0,6 <= C < 0,7 | | R10 |
| CYCLOHEXANONE CAS No 108-94-1 CE No 203-631-1 Index No 606-010-00-7 | 6 <= C < 7 | Xn | R10 R20 |
| BUTYLGLYCOL ACETATE CAS No 112-07-2 CE No 203-933-3 Index No 607-038-00-2 | 27 <= C < 28,5 | Xn | R20/21 |
| SOLVENT NAPHTA (PETROLEUM), LIGHT AROM CAS No 64742-95-6 CE No 265-199-0 Index No 649-356-00-4 | 6 <= C < 7 | Xn | R65 Note H P 4 |

The complete text of -R- phrases is specified in section 16.

4. First aid measures

EYES: Irrigate copiously with clean, fresh water for at least 15 minutes. Seek medical advice.

SKIN: Wash immediately with plenty of water. Remove contaminated clothing. If irritation persists, seek medical attention. Wash contaminated clothing before using them again.

INHALATION: Remove to open air. If breathing is irregular, seek medical advice.

INGESTION: Obtain immediate medical attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person.

5. Fire-fighting measures

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Excess pressure may form in containers exposed to fire at a risk of explosion. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water and the remains of the fire according to applicable regulations.

SUITABLE EXTINGUISHING MEDIA

The extinction equipment should contain carbon dioxide, foam or chemical powders. For product leaks and spills that have not caught fire, nebulised water can be used to dispel flammable fumes and protect the individuals taking part in stemming the leak.

EXTINGUISHING MEDIA WHICH SHALL NOT BE USED FOR SAFETY REASONS

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products (carbon oxide, toxic pyrolysis products, etc).

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Hardhat with visor, fireproof clothing (fireproof jacket and trousers with ties around arms, legs and waist) work gloves (fireproof, cut proof and dielectric), self-respirator (self-protector).

6. Accidental release measures

PERSONAL PRECAUTIONS

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. If there are no contraindications, spray solid products with water to prevent the formation of dust. Use breathing equipment if fumes or powders are released into the air. Block the leakage if there is no hazard. Do not handle damaged containers or the leaked product before donning appropriate protective gear. For information on risks for the environmental and health, respiratory tract protection, ventilation and personal protection equipment, see the other sections of this sheet.

ENVIRONMENTAL PRECAUTIONS

The product must not penetrate the sewers, surface water, ground water and neighbouring areas.

METHODS FOR CLEANING UP

Use inert absorbent material (sand, vermiculite, diatomeous earth, Kieselguhr, etc.) to soak up leaked product. Collect the majority of the remaining material and deposit it in containers for disposal. If there are no contraindications, use jets of water to eliminate product residues. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

7. Handling and storage

Store in a well ventilated place, keeping the containers closed when not used. Do not smoke while handling. Keep far away from sources of heat, bright flames and sparks and other sources of ignition.

8. Exposure control / personal protection.

8.1 Exposure limit values

| Name | Type | Country | TWA/8h | | STEL/15min | | |
|------------------------------|-----------|---------|--------|-----|------------|-----|------|
| | | | mg/m3 | ppm | mg/m3 | ppm | |
| 1-METHOXY-2-PROPANOL ACETATE | OEL | EU | 275 | 50 | 550 | 100 | Skin |
| | OEL | IRL | | 50 | | 100 | Skin |
| | WEL | UK | | 50 | | 100 | Skin |
| 1-METHOXY-2-PROPANOL | TLV-ACGIH | | 369 | | 553 | | Skin |
| | OEL | EU | 375 | 100 | 568 | 150 | Skin |
| | OEL | IRL | | 100 | | 300 | Skin |
| | WEL | UK | | 100 | | 150 | Skin |
| CYCLOHEXANONE | TLV-ACGIH | | 80 | | 200 | | Skin |
| | OEL | EU | 40,8 | 10 | 81,6 | 20 | Skin |
| | OEL | IRL | | 10 | | 20 | Skin |
| | WEL | UK | | 10 | | 20 | Skin |

BUTYLGLYCOL ACETATE

| | | | | | | | |
|-----------|-----|-----|----|-----|----|--|------|
| TLV-ACGIH | | 131 | | | | | Skin |
| OEL | EU | 133 | 20 | 333 | 50 | | Skin |
| OEL | IRL | | 20 | | | | Skin |
| WEL | UK | | 20 | | 50 | | Skin |

8.2 Exposure controls

As the use of adequate technical equipment must always take priority over personal protection equipment, make sure that the workplace is well aired through effective local aspiration or bad air vent. If such operations do not make it possible to keep the concentration of the product below the permitted workplace exposure thresholds a suitable respiratory tract protection must be used. See product label for hazard details during use. Ask your chemical substance suppliers for advice when choosing personal protection equipment. Personal protection equipment must comply with the rules in force indicated below.

RESPIRATORY PROTECTION.

If workplace maximum concentration thresholds are exceeded, wear a partial facemask with an ABEK2P3 fume and powder mask (see standard EN 141). If no technical measures are defined, to limit worker exposure, airway protection equipment, such as masks with cartridges for organic fumes and for powders/dusts, must be used. Facemasks only provide limited protection. For high concentrations in the workplace or in the case of an emergency, when exposure levels are unknown, wear an open circuit compressed air self-respirator (see standard EN 137) or an external air intake respirator with mask, partial mask or snorkel (see standard EN 138).

HAND PROTECTION.

Protect hands using Laminate LCT Film work gloves. We recommend applying protective hand cream. The following should be considered when choosing work glove material: degradation, breakage times and permeation. Work glove resistance to preparations should be checked before use, as it can be unpredictable. Gloves' limit depends on the duration of exposure.

EYE PROTECTION.

Wear sealed protective goggles with side shields (see standard EN 166).

SKIN PROTECTION.

Wear water-repellent overalls with long sleeves and professional water-repellent safety footwear.

For maintenance and product transfer operations: tyvek overalls and water-repellent PVC boots. Wash with soap and water after removing protective clothing. Wash clothing before reuse.

An emergency eye washing and shower system must be provided.

9. Physical and chemical properties

| | |
|--|--------------------|
| Colour | white |
| Odour | typical of solvent |
| Physical state | liquid |
| Viscosity | Not available |
| Vapour density | > 1 (aria =1) |
| Evaporation speed | Not available |
| Comburent properties | Not available |
| Partition coefficient: n-octanol/water | Not available |
| pH | Not available |
| Boiling point | °C>140 |
| Flash point | °C>21 |
| Explosive properties | Not available |
| Vapour pressure | Not available |
| Specific gravity | Not available |
| Solid content: | 19,30 % |
| VOC (Directive 1999/13/EC) : | 78,38 % |
| VOC (volatile carbon) : | 48,11 % |

10. Stability and reactivity

The product is stable in normal conditions of use and storage. When heated or in the event of a fire, carbon oxides may be released and vapours which are dangerous to health. The vapours may also form explosive mixtures with the air.

Petroleum naphtha solvent: it can give flammable mixtures with air.

1-methyl-2-methoxyethyl acetate: it is stable but in presence of air, it can gradually form peroxides which explode due to the rise in temperature. It can react violently with oxidizing agents and strong acids and alkaline metals. Avoid copper, aluminium and their alloys when storing. Store under inert atmosphere, repaired from humidity because it easily hydrolyses.

Cyclohexanone reacts violently with strong oxidizing agents and attacks different types of plastic materials (ref. H.C.S.).

11. Toxicological information

Acute effects: inhalation and cutaneous absorption of this product are harmful. This product may irritate mucosas, the upper respiratory tract, and eyes. Exposure symptoms may include: stinging and irritated eyes, mouth, nose, throat; cough, respiratory disorders, dizziness, headache, nausea and sickness.

In the most serious cases, inhalation of this product may cause larynx and bronchial tube edema and irritation, chemical pneumonia and pulmonary edema. Upon contact with skin, this product may irritate it, causing an increase in skin temperature, swelling and itchiness. Ingestion of even small amounts of this product may cause health problems (stomach pain, nausea, sickness, diarrhoea).

1-methoxy-2-propanol and corresponding acetate: the main way of entry is the skin, whereas the respiratory way is less important owing to the low vapour tension of the product. Concentrations above 100 ppm cause eye irritation, nose and oropharynx.

The recommended limit of exposure is 100 ppm for 8 hours. At 1000 ppm disturbance in the equilibrium and severe eye irritation is observed. (For further details refer to INRS, Fiche toxicologique, nr. 221).

Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and ocular irritation on direct contact. No chronic effects have been reported in man. In vitro genotoxicity tests on animals resulted to be negative.

No significant effects were observed in studies on animal reproduction.

The following experimental data confirm that the substance is not even harmful: oral LD50 in the rat = 7900 mg/kg, inhalation CL50 in the rat 4 hours = 55.2 mg/l (Fiche toxicologique nr. 221).

2-METHOXY-1-METHYLETHYL ACETATE: oral LD50 (mg/kg) > 5000 (RAT) ; dermal LD50 (mg/kg) > 5000 (RAT).

12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

Petroleum distillates, charcoal, vegetable extracts: they are mixtures of paraffinic, naphthenic, diterpenic and aromatic hydrocarbons. Their behaviour on the environment depends on the concentration. In each case use, according to good working practices, avoiding disposal in the environment. As a rule, the product is poorly biodegradable.

13. Disposal consideration

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

These goods must be transported by vehicles authorized to the carriage of dangerous goods according to the provisions set out in the current edition of the Code of International Carriage of Dangerous Goods by Road (ADR) and in all the applicable national regulations.

These goods must be packed in their original packagings or in packagings made of materials resistant to their content and not reacting dangerously with it. People loading and unloading dangerous goods must be trained on all the risks deriving from these substances and on all actions that must be taken in case of emergency situations.

Road and rail transport:

| | |
|-----------------------|---------------------|
| ADR/RID: | 3 |
| UN: | 1210 |
| Packing Group: | III |
| Label: | 3 |
| Nr. Kemler: | 30 |
| Proper Shipping Name: | Screen Printing ink |
| Special Provision: | 640E |



Carriage by sea (shipping):

| | |
|-----------------------|--------------|
| IMO class: | 3 |
| UN: | 1210 |
| Packing Group: | III |
| Label: | 3 |
| EMS: | F-E, S-D |
| Proper Shipping Name: | Printing ink |

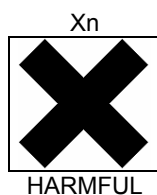


Transport by air:

| | |
|-------------------------|---------|
| IATA: | 3 |
| UN: | 1210 |
| Packing Group: | III |
| Label: | 3 |
| Cargo: | |
| Packaging instructions: | 310 |
| Maximum quantity: | 220 L |
| Pass.: | |
| Packaging instructions: | 309 |
| Maximum quantity: | 60 L |
| Special Instructions: | A3, A72 |



15. Regulatory information



| | |
|--------|---|
| R10 | FLAMMABLE. |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. |
| R36 | IRRITATING TO EYES. |
| S25 | AVOID CONTACT WITH EYES. |
| S26 | IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE. |
| S36/37 | WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES. |
| S45 | IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE). |
| S53 | AVOID EXPOSURE - OBTAIN SPECIAL INSTRUCTIONS BEFORE USE. |
| S61 | AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/SAFETY DATA SHEETS. |

Contains:
BUTYLGLYCOL ACETATE

Danger labelling under directives 67/548/EEC and 1999/45/EC and following amendments and adjustments.
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

16. Other information

Text of -R- phrases quoted in section 3 of the sheet.

| | |
|--------|---|
| R10 | FLAMMABLE. |
| R20 | HARMFUL BY INHALATION. |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. |
| R36 | IRRITATING TO EYES. |
| R36/38 | IRRITATING TO EYES AND SKIN. |
| R65 | HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED. |

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments;
2. Directive 67/548/EEC and following amendments and adjustments (technical adjustment XXIX);
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament;
4. The Merck Index. - 10th Edition;
5. Handling Chemical Safety;
6. Niosh - Registry of Toxic Effects of Chemical Substances;
7. INRS - Fiche Toxicologique (toxicological sheet);
8. Patty - Industrial Hygiene and Toxicology;
9. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition;

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product .

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

PRODUCT FOR PROFESSIONAL USE ONLY.

Changes to previous review

The following sections were modified:

01 / 02 / 03 / 08 / 09 / 13 / 15 / 16