

Safety Data Sheet

1. Identification of the substance / preparation and the Company

1.1 Identification of the substance or preparation

Product name SERIE PLT33

1.2 Use of the substance / preparation

Intended use Pad printing ink

1.3 Company identification

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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 |
|------------------------------|---------------------|----------------|
| XYLENE (MIXTURE OF ISOMERS) | 7 <= C < 8 | R10 |
| CAS No 1330-20-7 | | Xn R20/21 |
| CE No 215-535-7 | | Xi R38 |
| Index No 601-022-00-9 | | Note C |
| 1-METHOXY-2-PROPANOL ACETATE | 20 <= C < 21,5 | R10 |
| CAS No 108-65-6 | | Xi R36 |
| CE No 203-603-9 | | |
| Index No 607-195-00-7 | | |

| | | | |
|--|----------------|----------------|------------------------------------|
| ETHYLBENZENE CAS No 100-41-4 CE No 202-849-4 Index No 601-023-00-4 | 1 <= C < 1,5 | F Xn | R11 R20 |
| CHLOROBENZENE CAS No 108-90-7 CE No 203-628-5 Index No 602-033-00-1 | 0,7 <= C < 0,8 | Xn N | R10 R20 R51/53 |
| BUTANOL CAS No 71-36-3 CE No 200-751-6 Index No 603-004-00-6 | 3 <= C < 3,5 | Xn Xi Xi | R10 R67 R22 R37/38 R41 |
| CYCLOHEXANONE CAS No 108-94-1 CE No 203-631-1 Index No 606-010-00-7 | 9 <= C < 10,5 | Xn | R10 R20 |
| BUTYLGLYCOL ACETATE CAS No 112-07-2 CE No 203-933-3 Index No 607-038-00-2 | 19,5 <= C < 21 | Xn | R20/21 |
| SOLVENT NAPHTA (PETROLEUM), LIGHT AROM CAS No 64742-95-6 CE No 265-199-0 Index No 649-356-00-4 | 5 <= C < 6 | 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 sources of ignition (cigarettes, flames, sparks, etc.) from the air in which the leak occurred. 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 leaked product before donning appropriate protective gear. Send away individuals who are not suitably equipped. For information on risks for the environmental and health, respiratory tract protection, ventilation and personal protection equipment, refer to 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

For liquid products, suck into a suitable container (made of material not incompatible with the product) and soak up any leaked product with absorbent inert material (sand, vermiculite, diatomaceous earth, Kieselguhr, etc). Collect the majority of the remaining material and deposit in containers for disposal. For solid products, use spark proof mechanical tools to collect the leaked product and place in plastic containers. 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/m ³ | ppm | mg/m ³ | ppm | |
| XYLENE (MIXTURE OF ISOMERS) | | | | | | | |
| | TLV-ACGIH | | 434 | | 651 | | Skin |
| | OEL | EU | 221 | 50 | 442 | 100 | Skin |
| | OEL | IRL | | 50 | | 100 | Skin |
| | WEL | UK | | 50 | | 100 | Skin |
| 1-METHOXY-2-PROPANOL ACETATE | | | | | | | |
| | OEL | EU | 275 | 50 | 550 | 100 | Skin |
| | OEL | IRL | | 50 | | 100 | Skin |
| | WEL | UK | | 50 | | 100 | Skin |
| ETHYLBENZENE | | | | | | | |
| | TLV-ACGIH | | 434 | | 543 | | Skin |
| | OEL | EU | 442 | 100 | 884 | 200 | Skin |
| | OEL | IRL | | 100 | | 125 | Skin |
| | WEL | UK | | 100 | | 125 | Skin |
| CHLOROBENZENE | | | | | | | |
| | TLV-ACGIH | | 46 | | | | Skin |
| | OEL | EU | 47 | 10 | 94 | 20 | Skin |
| | OEL | IRL | | 10 | | 20 | Skin |
| | WEL | UK | | 1 | | 3 | Skin |
| BUTANOL | | | | | | | |
| | TLV-ACGIH | | 61 | | | | Skin |
| | OEL | IRL | | | | 25 | Skin |
| | WEL | UK | | | | 50 | 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.

HAND PROTECTION

Protect hands with category III (ref. Directive 89/686/EEC and standard EN 374) work gloves, such as those in PVA, butyl, fluoroelastomer or equivalent. 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 protective airtight goggles (ref. standard EN 166).

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (ref. Directive 89/686/CEE and standard EN 344). Wash body with soap and water after removing overalls.

RESPIRATORY PROTECTION

If the threshold value for one or more of the substances present in the preparation for daily exposure in the workplace or to a fraction established by the company's prevention and protection service is exceeded, wear a mask with an A or universal filter, the class (1, 2 or 3) of which must be chosen according to the limit concentration of use (ref. standard EN 141).

The use of breathing protection equipment, such as masks with organic vapour and dust/mist cartridges, is necessary in the absence of technical measures limiting worker exposure. The protection provided by masks is in any case limited.

If the substance in question is odourless or its olfactory threshold is higher than the relative exposure limit and in the event of an emergency, or when exposure levels are unknown or the concentration of oxygen in the workplace is less than 17% volume, wear self-contained, open-circuit compressed air breathing apparatus (ref. standard EN 137) or fresh air hose breathing apparatus for use with full face mask, half mask or mouthpiece (ref. standard EN 138).

An emergency eye washing and shower system must be provided.

9. Physical and chemical properties

| | |
|--|--|
| Colour | various |
| Odour | typical of solvent |
| Physical state | liquid |
| Solubility | partially soluble in water. Soluble in almost all organic solvents |
| 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 | >120°C |
| Flash point | >21°C |
| Explosive properties | Not available |
| Vapour pressure | Not available |
| Specific gravity | Not available |
| Solid content: | 29,95 % |
| VOC (Directive 1999/13/EC) : | 69,85 % |
| VOC (volatile carbon) : | 46,45 % |

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.

Xylene is stable but may give violent reactions if placed in contact with strong oxidants such as nitric acid, sulfuric acid, perchlorates and similar agents. It is biodegradable in water and decomposes in the sunlight (photodegradable).

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.

Ethylbenzene: it reacts violently with strong oxidizing agents and attacks different types of plastic material. It is readily biodegradable in water.

Butyl alcohol is biodegradable (MITI1984). The mixture reacts with strong oxidizing agents and with alkaline metals releasing flammable hydrogen. It attacks different types of plastic materials.

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 mucosae, 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).
BUTANOL: oral LD50 (mg/kg) 790 (RAT) ; dermal LD50 (mg/kg) 3400 (RABBIT) ; inhalation LC50 (rat) 8000 ppm/4h.

12. Ecological information

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

Please take all the proper measures to reduce harmful effects on aquifers.

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.


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 Class: | 3 | |
| UN: | 1210 | |
| Packing Group: | III | |
| Label: | 3 | |
| Nr. Kemler: | 30 |  |
| Limited Quantity | LQ07 | |
| Tunnel restriction code | (D/E) | |
| Proper Shipping Name: | PRINTING INKS OR SIMILAR MATERIALS FOR PRINTING INKS | |
| Special Provision: | 640E | |

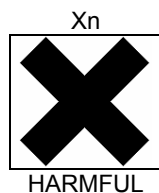
Carriage by sea (shipping):

| | | |
|-----------------------|---|---|
| IMO Class: | 3 | |
| UN: | 1210 | |
| Packing Group: | III | |
| Label: | 3 |  |
| EMS: | F-E, S-D | |
| Marine Pollutant | NO | |
| Proper Shipping Name: | PRINTING INK or PRINTING INK RELATED MATERIAL | |

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 | |
| Proper Shipping Name: | PRINTING INK or PRINTING INK RELATED MATERIAL | |

15. Regulatory information



| | |
|--------|---|
| R10 | FLAMMABLE. |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. |
| R36 | IRRITATING TO EYES. |
| S 9 | KEEP CONTAINER IN A WELL-VENTILATED PLACE. |
| 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. |
| S43 | IN CASE OF FIRE, USE CHEMICAL POWDER FIRE EXTINGUISHER. DO NOT USE WATER. |

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. |
| R11 | HIGHLY FLAMMABLE. |
| R20 | HARMFUL BY INHALATION. |
| R20/21 | HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. |
| R22 | HARMFUL IF SWALLOWED. |
| R36 | IRRITATING TO EYES. |
| R37/38 | IRRITATING TO RESPIRATORY SYSTEM AND SKIN. |
| R38 | IRRITATING TO SKIN. |
| R41 | RISK OF SERIOUS DAMAGE TO EYES. |
| R51/53 | TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. |
| R65 | HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED. |
| R67 | VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS. |

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) 1272/2008 (CLP) of the European Parliament;
4. Regulation (EC) 1907/2006 (REACH) of the European Parliament;
5. The Merck Index. - 10th Edition;
6. Handling Chemical Safety;
7. Niosh - Registry of Toxic Effects of Chemical Substances;
8. INRS - Fiche Toxicologique (toxicological sheet);
9. Patty - Industrial Hygiene and Toxicology;
10. 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.