

European Safety Data Sheet

1. Identification of the substance / preparation and the Company

1.1 Identification of the substance or preparation

Code: PC02001
Product name: FIRE PAINT

1.2 Use of the substance / preparation

Intended use: Special heat resisting paint

1.3 Company identification

Name: MACOTA s.r.l.
Full address: Via Piave, 82
District and Country: 50053 Empoli (FI)
ITALIA

1.4 Emergency telephone

For urgent inquiries refer to: Uffici e Stabilimento: Via della Fornace, 9/11/13 - Via Corta 1/b
56020 San Romano (PI)
Tel. ++39 (0)571 450184 - ++39 (0)571 450185

2. Composition / Information on ingredients

Contains:		
Name	Concentration C	Classification
Isobutane	5 <= C < 9	F+ R12 Remarks Note C
Cas No 75-28-5		
CE No 200-857-2		
Index No 601-004-00-0		
2-METHOXY-1-METHYLETHYL ACETATE	5 <= C < 9	R10 Xi R36
Cas No 108-65-6		
CE No 203-603-9		
Index No 607-195-00-7		
BUTANE	9 <= C < 30	F+ R12 Remarks Note C
Cas No 106-97-8		
CE No 203-448-7		
Index No 601-004-01-8		
PROPANE	9 <= C < 30	F+ R12
Cas No 74-98-6		
CE No 200-827-9		
Index No 601-003-00-5		
ACETONE	15 <= C < 20	R66 R67 F R11 Xi R36 Remarks Note 6
Cas No 67-64-1		
CE No 200-662-2		
Index No 606-001-00-8		
ETHYL ACETATE	5 <= C < 9	R66 R67 F R11 Xi R36
Cas No 141-78-6		
CE No 205-500-4		
Index No 607-022-00-5		



N-BUTYL ACETATE
Cas No 123-86-4
CE No 204-658-1
Index No 607-025-00-1

1 <= C < 5

Remarks Note 6
R10
R66
R67
Remarks Note 6

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

3. Hazards Identification

3.1 Substance/Preparation Classification

This preparete is dangerous under 67/548/EEC and 1999/45/EC directives and subsequent amendments. Therefore, this preparete requires a safety data sheet according to the 91/155/EC regulation and subsequent amendments. Further information on health and/or environmental hazards can be found in sections 11 and 12 of this sheet.

Danger Symbols:

F+-Xi

Phrases R:

12-36-66-67

3.2 Danger Identification

Because of its chemical-physical features, this product is graded as highly flammable (flash-point below 0 °C and boiling point / boiling start equal to 35° C or lower).

IRRITATING TO EYES.

REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING.

VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.

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

Closed containers exposed to the heat of a fire may lead to pressure rise and explode. For information on environmental and health risks, protection of the respiratory airways, ventilation and individual protective measures, refer to the other sections of this sheet.

Extinguishing measures: CO₂, foam, chemical powder for flammable liquids. Water may not be effective to extinguish the fire, nevertheless it should be used to cool the containers exposed to flames and prevent fires and explosions. For leakage and spillage that have not caught fire, nebulized water may be used to disperse the flammable vapours and protect the people involved in stopping the leakage.

Equipment: wear equipment complete with helmet and face shield and protection of the neck, selfbreathing apparatus at pressure or demand, insulative jacket and trousers, with bands around the arms, legs and waist.

6. Accidental release measures

Exclude sources of ignition. Cover with inert absorbent material. Collect spillages by means of sparkproof equipment. Use water only to remove residuals, so as not to run the risk of entering the sewer.

Do not let the product dry. Contaminated clothes must be left to soak in water before washing. In order to choose safety measures and protection equipment, please see the other sections of this sheet.

Spillage in waters: remove the liquid from the surface with flameproof pumps or manual pumps or suitable absorbent material. Resort to sinking and/or dispersion of the product with suitable substances in open waters, if permitted by the law.

7. Handling and storage

Avoid the accumulation of electrostatic charges. Store the containers sealed and in a well ventilated place. Vapours may ignite with explosion, it is therefore necessary to avoid accumulation keeping the windows and doors open, ensuring crossventilation.

Without adequate ventilation, the vapours may accumulate at the bottom and ignite at a distance, if triggered off, with the risk of flashback. Keep far away from sources of heat, sparks and naked flames. Do not smoke, use matches or lighters. Keep the containers earthed while decanting and wear antistatic boots.

Vigorous stirring and flow through the pipings and equipment may cause the formation and accumulation of electrostatic charges due to the low conductivity of the product. In order to avoid the risk of fire outbreak and explosion never use compressed air during movement.

8. Exposure control / personal protection.

2-METHOXY-1-METHYLETHYL ACETATE

- OEL 275 mg/m3 EU (8h) skin

ACETONE

- TLV TWA 1188 mg/m3 ACGIH
 - TLV STEL 1782 mg/m3 ACGIH
 - OEL 1210 mg/m3 EU (8h)

ETHYL ACETATE

- TLV TWA 1440 mg/m3 ACGIH

N-BUTYL ACETATE

- TLV TWA 713 mg/m3 ACGIH
 - TLV STEL 950 mg/m3 ACGIH

In order to minimize exposure as far as possible, it is strongly recommended to use adequate individual protective measures, such as: masks suitable for the product, goggles, gloves and overall. Do not eat, drink or smoke while handling it. Accurately wash the hands with soap and water before meals and at the end of the work shift.

9. Physical and chemical properties

Colour	Coloured
Odour	Characteristic
Appearance	Aerosol
Solubility	Not soluble
Boiling point	<35°C
Flash point	<0°C

10. Stability and reactivity

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

1-methoxy-2-propylacetate: 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.

Acetone reacts violently with chloroform in basic ambient with the risk of fires and explosions (ref. Handling chemicals safely).

Ethyl acetate may decompose when heated with water and reacts with strong oxidizing agents (see INRS NIS FORM N18, ED. 1991).

Nbutyl acetate easily decomposes with water especially when heated.

11. Toxicological information

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

This product may have a degreasing action on the skin, producing dryness and chapped skin after repeated exposure.

This product contains highly volatile substances, which may cause serious depression of the central nervous system (CNS) and have negative effects, such as drowsiness, dizziness, slow reflexes, narcosis.

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

The recommended limit of exposure is 100 ppm for 8 hours. At 1000 ppm disturbance in the equilibrium and severe irritation of the eyes 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).

N-butyl acetate: the vapours are particularly irritating to the eyes and respiratory airways and at high concentrations they are also narcotic. Frequent contact with the skin may cause dermatitis (INR nr. 31, 1987).

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 litter. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

13. Disposal consideration

Consider the possibility of burning the product in a suitable incenerator. Acid or basic products must always be neutralized before undergoing any treatment, including biological treatment whenever feasible. If the waste is solid, it can be disposed of in a landfill.

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:

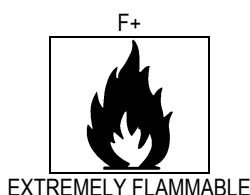
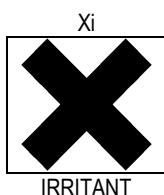
ADR: 2
UN: 1950
Label: 2.1
Proper Shipping Name: Aerosols

Carriage by sea (shipping):

IMO class: 2.1
UN: 1950
Label: 2.1
EMS: F-D, S-U
Proper Shipping Name: Aerosols

Transport by air:

IATA:	2.1
UN:	1950
Label:	2.1
Cargo:	
Packaging instructions:	203
Maximum quantity:	150 Kg
Pass.:	
Packaging instructions:	203
Maximum quantity:	75 Kg

15. Regulatory information

R12	EXTREMELY FLAMMABLE.
R36	IRRITATING TO EYES.
R66	REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING.
R67	VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.
S 2	KEEP OUT OF THE REACH OF CHILDREN.
S18	HANDLE AND OPEN CONTAINER WITH CARE.
S23	DO NOT BREATHE GAS/FUMES/VAPOUR/SPRAY (APPROPRIATE WORDING TO BE SPECIFIED BY THE MANUFACTURER).
S25	AVOID CONTACT WITH EYES.
S46	IF SWALLOWED, SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.
S51	USE ONLY IN WELL-VENTILATED AREAS.

Contents under pressure. Store away from sunbeams and do not expose to temperatures above 50° C. Do not pierce or burn, not even after use.

Do not spray on flames or incandescent objects.
Keep far from combustion sources. Do not smoke.
Keep out of the reach of children.

Danger labelling under directives 67/548/EEC and 1999/45/EC and following amendments and adjustments.

Workers exposed to this chemical agent must undergo health checks according to regulation 98/24/EC.

16. Other information

Text of -R- phrases quoted in section 2 of the sheet.

R10	FLAMMABLE.
R11	HIGHLY FLAMMABLE.
R12	EXTREMELY FLAMMABLE.
R36	IRRITATING TO EYES.
R66	REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING.
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);



MACOTA s.r.l.
FIRE PAINT (x O.M.P. RACING S.P.A.)

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Azienda con Sistema Qualità Certificato UNI EN ISO 9001:2000 N. IT 05/0618



3. Directive 91/155/EEC and following amendments;
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.

Changes to previous review

The following sections were modified:

01 / 02 / 08 / 09 / 11 / 15 / 16