



Safety Data Sheet

1. Identification of the substance / preparation and the Company

1.1 Identification of the substance or preparation

Product name **Paint Marker Inks**

1.2 Use of the substance / preparation

Intended use **Inks for valve marker pen**

1.3 Company identification

Name **Thoro Enterprises de Mexico SA de CV**
Full address **Av. México Japón #412. Bodega 31. Col Ciudad Industrial. Celaya. Gto Mex**

Tel. **+52 (461) 203 1000**

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

1.4 Emergency telephone

For urgent inquiries refer to **+52 (461) 203 1000**

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.

R phrases: 10-66-67

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).
REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING.
VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.

3. Composition / Information on ingredients.

Contains:

Name.	Concentration % (C).	Classification.
BUTANONE	2<= e <2,5	R66
<i>C.A.S. number</i>	78-93-3	R67
<i>ECnumber</i>	201-159-0	F R 11
<i>INDEX number</i>	606-002-00-3	Xi R36
N-BUTYL ACETATE	35<= c <37,5	R10
<i>C.A.S. number</i>	123-86-4	R66
<i>ECnumber</i>	204-658-1	R67
<i>INDEX number</i>	607-025-00-1	

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, diatomaceous 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	Countr1	TWN8h mg/m3	ppm	STEL/15min mg/m3	ppm	
BUTANONE	TLV-ACGIH		590		885		
	OEL	EU	600	200	900	300	
	OEL	IRL		200		300	
	WEL	UK		200		300	
N-BUTYL ACETATE	TLV-ACGIH		713		950		
	OEL	IRL		150		200	
	WEL	UK		150		200	

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 11 (ref. Directive 89/686/EEC and standard EN 374) work gloves, such as those in PVC, neoprene, nitril 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.

Odour	characteristic of solvent
Appearance	liquid
Solubility	immiscible with water
Viscosity	Not available.
Vapour density	Not available.
Evaporation Rate	Not available.
Reactive Properties	Not available.
Partition coefficient: n-octanol/water	Not available.
pH.	Not available.
Boiling point.	Not available.
Flash point.	> 23 °C.
Explosive properties.	Not available.
Vapour pressure.	Not available.
Specific gravity.	0,9-1,1 Kg/l
VOC (Directive 1999/13/EC) :	37,00 % - 340,40 g/litre of preparation.
VOC (volatile carbon) :	23,03 % - 211,83 g/litre of preparation.

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.

Methylethyl ketone reacts with light metals such as, aluminium and strong oxidizing agents. It attacks different types of plastic materials. Nbutyl acetate easily decomposes with water especially when heated.

11. Toxicological information.

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.

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

METHYLETHYL KETONE: oral LD50 (mg/kg) 2737 (RAT) ; dermal LD50 (mg/kg) 6480 (RABBIT) ; inhalation LC50 (rat) 23,5 mg/l/8h.

**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.

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: 1263
Packing Group: 111
Label: 3
Nr. Kemler: 30
Limited Quantity: LQ07
Tunnel restriction code: (D/E)
Proper Shipping Name: PAINT or PAINT RELATE MATERIAL
Special Provision: 640E

**Carriage by sea (shipping):**

IMOC class: 3 UN: 1263
Packing Group: 111
Label: 3
EMS: F-E H
Marine Pollutant: NO
Proper Shipping Name: PAINT or PAINT RELATE MATERIAL

**Transport by air:**

IATA: 3 UN: 1263
Packing Group: 111
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: PAINT or PAINT RELATE MATERIAL

**15. Regulatory information.**

Warning symbols: None.

R10 FLAMMABLE.
R66 REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING.
R67 VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.
S43 IN CASE OF FIRE, USE CO₂, FOAM, DRY CHEMICAL POWDER. 'NEVER 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.
R 11	HIGHLY 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**);
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. N1. 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:

01/08/13/14