DIXON TICONDEROGA COMPANY
"Since 1795"
A FILA COMPANY

Material Safety Data Sheet

Ticonderoga Emphasis Desk Highlighters

1. Chemical product and Company Identification

Company Identification: Dixon Ticonderoga Company
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Telephone: 800-824-9430

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Emergency call: **800-824-9430**

Product Name: Ticonderoga Emphasis Desk Highlighters
Product Code(s): 47065, 47066, 47067, 47068, 47069, 47070, 47074, 47076

2. Composition/Information On Ingredients

Contains:

Name:	Concentration % (C).	Classification
1. METHOXY-2-PROPANOL	40 < = C <42, 5	R 10
C.A.S number	107-98-2	
E.C. number	203-539-1	
INDEX number	603-064-00-3	

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

3. Hazards Identification

2.1 Substance/Preparation Classification

This produce is dangerous under 67/548/EEC and 1999/45/EC directives and subsequent amendments .
Therefore, this product requires a data safety 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.

Dangerous Symbols: F
R phrases: 11

2.2 Danger Identification

Because of its chemical-physical features, this product is graded as highly flammable (flash-point below 21˚ C)

4.First Aid Measures

No harm to the staff authorized to use has been reported. However, in case of contact, inhalation, or ingestion, the following general measures provided for a first aid shall be taken.

INHALATION: Remove to open air. If respiration is difficult, administrator artificial respiration and seek medical advice.

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

EYES and SKIN: Wash with plenty of water; if the irritation persists, seek medical advice.

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 gears. Collect extinguishing water to prevent it form draining into the sewer system. Dispose of contaminated water and the remains of the fire according to applicable regulations.

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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 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 environment and health, respiratory tract protection, ventilation, and personal equipment, refer to the other sections of this sheet.

ENVIRONMENTAL PRECAUTIONS

The product must not penetrate the sewers, surface water, ground water, and neighboring 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, diatomeous 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 contradictions, 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

Avoid the accumulation of electrostatic charges. Store the containers sealed and in a well ventilated place.
Vapors may ignite with explosion, it is therefore necessary to avoid accumulation keeping the windows and doors open, ensuring cross ventilation.
Without adequate ventilation, the vapors 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, bright flames. Do not smoke, use matchers 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 Controls/Personal Protection

8.1 Exposure limit values

Name	Type	Country	TWA/8h mg/m3	ppm	STEL/15 min mg/3m	ppm	
1-METHOXY-2-PROPANOL	TLV-ACGIH		369	100	553		Skin
	OEL	EU	375	100	568	150	Skin
	OEL	IRL		100		300	Skin
	WEL	UK		100		150	Skin

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

Use of protective airtight goggles (ref. standard EN 166) recommended.

SKIN PROTECTION

Wear category I 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 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 AZ 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 vapor 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 odorless or is 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).

9. Physical and Chemical Properties

Odor	
Appearance	Liquid
Solubility	immiscible with water
Viscosity	8-15 cps
Vapor Density	N/A
Evaporation Rate	N/A
Reactive Properties	N/A
Partition coefficient: n-octane/water	N/A
pH	N/A
Boiling Point	N/A
Flash Point	< 21 ˚C.
Explosive Properties	N/A
Vapor Pressure	N/A
Specific Gravity	0,950 Kg/l
VOC (Directive 1999/13/EC)	70, 00% - 665,00 g/liter of preparation
VOC (volatile carbon)	36, 93% - 350,87 g/liter of preparation.

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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 vapors which are dangerous to health. The vapors may also form explosive mixtures with the air.

Ethanol reacts violently with strong oxidizing agents.
1-methoxy 2-propanol absorbs and dissolves in water and in organic solvents; it dissolves different plastic material; it is stable but into eh presence of air it can gradually form explosive peroxides when heated and may react with strong oxidizing agents and acids. It should be biodegradable. Stainless steel is suitable while copper and aluminum are not.

11. Toxicological Information

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

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 vapor 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)

ETHANOL: oral LD50 (mg/kg) 1501 (RAT) ; inhalation LC50 (rat) 5,9 mg/l/6h

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 Considerations

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 authorized waste management film, 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. Transportation 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 applicable national regulations.
These goods must be packed in their original packaging 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.

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Road and rail transport:

ADR/RID Class:	3 UN: 1210
Packing Group:	II
Label:	3
Nr. Kemler:	33
Limited Quantity:	LQ06
Tunnel restriction code:	(D/E)
Proper Shipping Name:	PRINTING INK or PRINTING INK RELATED MATERIAL
Special Provision:	640D

Carriage by sea (shipping):

IMO Class:	3 UN: 1210
Packing Group:	II
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:	II
Label:	3
Cargo:	
Packaging instructions:	307 Maximum quantity: 60 L
Pass.:	
Packaging instructions:	305 Maximum quantity: 5 L
Special Instructions:	A3, A72
Proper Shipping Name:	PRINTING INK or PRINTING INK RELATED MATERIAL

15. Regulatory Information

F

HIGHLY FLAMMABLE

R 11	HIGHLY FLAMMABLE
S 9	KEEP CONTAINER IN A WELL-VENTILATED PLACE
S 16	KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING
S 33	STATIC DISCHARGES.
	IN CASE OF FIRE, USE
	CO2, FOAM, DRY
	CHEMICAL POWDER.
S43	'NEVER USE
	WATER.'

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

16. Other Information

Text of ® phrases quoted in section 3 of the sheet.

R 10 FLAMMABLE

For further product safety information call 800-824-9430

Today's Date: 17-Nov-09

This information contained herein is based on data considered accurate. However no warranty is expressed or implied regarding the accuracy of these data or results obtained from the use thereof. Dixon Ticonderoga company assumes no responsibility for personal damage caused by the product. Users assume all risks associated with use.