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1.0 – Identification of the subst	ance/mixture and of the company/undertaking
1.1 – Product identification	
Trade name Substance name Index-No. CAS-No. EC-No.	<ul> <li>Multichem PM5 Paint Marker Ink (Pigmented) (see section 16)</li> <li>n/a</li> <li>n/a</li> <li>n/a</li> <li>n/a</li> </ul>
1.2 – Relevant identified uses of	of the substance or mixture and uses advised against
Use of the substance/mixture Recommended restrictions on use	<ul> <li>Preparation for use in writing instruments.</li> <li>At this time we do not yet have information on use restrictions. They will be included in this safety data sheet when available.</li> </ul>
1.3 – Details of the supplier of	the safety data sheet
Company	: Multichem Ltd Tyne Mills Industrial Estate Hexham Northumberland NE46 1XL United Kingdom
Telephone	: +44 1434 606 085
Fax	: +44 1434 601 804
e-mail address	: mail@multichem.net
1.4 – Emergency telephone nu	mber
Emergency telephone	: +44 7887 612787
2.0 – Hazards Identification	

### 2.1 – Classification of the substance or mixture

Regulation (EC) No. 1272/2008				
Hazard class Hazard category Target organs Hazard statements				
Flammable liquids	2		H225	

For the full text of the H-Statements mentioned in this Section, see Section 16.

### Most important adverse effects

Human health	:	See Section 11 for toxicological information. No further information available.
Physical and chemical hazards Potential environmental effects	:	See Section 9 for physiochemical information. No further information available. See Section 12 for environmental information. No further information available.



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Labelling according	ng to R	egulation (E	EC) No. 1272/2008			
Hazard symbols:						
Signal word		: Danger				
Hazard statements Precautionary statements		: H225 : P210	Highly flammable Keep away from smoking.			ot surfaces. No
Prevention		P233 P240+P2	Keep container ti	ntainer and re		
		P280	Wear protective g	gloves/protec		
Storage		: P403+P2			e. Keep cool.	
No other informatic composition/inform cubstances		n ingredien				
<b>Composition/inform</b> Substances Chemical nature	ation o	n ingredien	e			A
Composition/inform Substances Chemical nature Chemical name	ation o	n ingredien : mixture ex No.	e REACH Reg. No.	CAS No.	EC No.	
Composition/inform Substances Chemical nature Chemical name Ethanol	ation o	n ingredien	e	<b>CAS No.</b> 64-17-5	<b>EC No.</b> 200-578-6	<mark>Amount (</mark> የ <70%
Composition/inform Substances Chemical nature Chemical name Ethanol Chemical name	ation o	n ingredien : mixture ex No. 002-00-5	e REACH Reg. No.	64-17-5	200-578-6	<70%
Composition/inform Substances Chemical nature Chemical name Ethanol Chemical name Ethanol	Ind	n ingredien : mixture ex No. 002-00-5 Cla	e REACH Reg. No. 01-2119457610-43 ssification according	64-17-5 to Regulation H225 (2)	200-578-6 on (EC) No. 12	<70%
Composition/inform Substances Chemical nature Chemical name Ethanol Chemical name Ethanol For the full text of t	Ind	n ingredien : mixture ex No. 002-00-5 Cla	e <b>REACH Reg. No.</b> 01-2119457610-43	64-17-5 to Regulation H225 (2)	200-578-6 on (EC) No. 12	<70%
Composition/inform Substances Chemical nature Chemical name Ethanol Chemical name Ethanol For the full text of t Cirst aid measures	Ind 603-0 he H-St	n ingredien : mixture ex No. 002-00-5 Cla atements me	e REACH Reg. No. 01-2119457610-43 ssification according	64-17-5 to Regulation H225 (2)	200-578-6 on (EC) No. 12	<70%
Composition/inform Substances Chemical nature Chemical name Ethanol Chemical name Ethanol For the full text of the irst aid measures Description of first a	Ind 603-0 he H-St	n ingredien : mixture ex No. 002-00-5 Cla atements me sures	e          REACH Reg. No.         01-2119457610-43         ssification according         entioned in this Section	64-17-5 to Regulation H225 (2) h, see Section	200-578-6 on (EC) No. 12 n 16.	<70%
Composition/inform Substances Chemical nature Chemical name Ethanol Chemical name Ethanol For the full text of t Cirst aid measures	he H-St	n ingredien : mixture ex No. 002-00-5 Cla atements me sures : Take c : Remov	e REACH Reg. No. 01-2119457610-43 ssification according	64-17-5 to Regulation H225 (2) h, see Section thing immedia oms persist,	200-578-6 on (EC) No. 12 n 16. ately	<70%
Composition/inform Substances Chemical nature Chemical name Ethanol Chemical name Ethanol For the full text of t For the full text of t Cirst aid measures Description of first a General advice	he H-St	n ingredien : mixture ex No. 002-00-5 Cla atements me sures : Take c : Removi uncons	e <b>REACH Reg. No.</b> 01-2119457610-43 <b>ssification according</b> entioned in this Section off all contaminated clo ve to fresh air. If sympt scious place in recover off with plenty of water	64-17-5 to Regulation H225 (2) h, see Section thing immedia oms persist, ry position.	200-578-6 on (EC) No. 12 n 16. ately seek medical a	<70%
Composition/inform Substances Chemical nature Ethanol Chemical name Ethanol For the full text of t For the full text of t Cirst aid measures Description of first a General advice In case of inhalation	he H-St	n ingredien : mixture ex No. 002-00-5 Cla atements me sures : Take c : Remove uncons : Wash advice : Rinse	e <b>REACH Reg. No.</b> 01-2119457610-43 <b>ssification according</b> entioned in this Section off all contaminated clo ve to fresh air. If sympt scious place in recover off with plenty of water	64-17-5 to Regulation H225 (2) h, see Section thing immedia oms persist, by position. If skin irritat of water, also	200-578-6 on (EC) No. 12 n 16. ately seek medical a ion persists, se	<70%



### SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 (REACH) and (EC) No. 1272/2008 (CLP)

### PM5 Paint Marker Ink (Pigmented) (colours listed in Section 16\*)

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Symptoms	: No further information available.
Effects	: No further information available.
3 – Indication of immediate mee	dical attention and special treatment needed
Treatment	: Treat symptomatically. No further information available.
0 – Fire-fighting measures	
1 – Extinguishing media	
Suitable extinguishing media	: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	: High volume water jet.
2 – Special hazards arising fror	n the substance or mixture
Specific hazards during fire-fighting	<ul> <li>Highly flammable. Vapours may form explosive mixtures with air. In case of fire hazardous decomposition products may be produced, such as carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>).</li> </ul>
3 – Advice for fire-fighters	
Special protective equipment for fire-fighters Further information	<ul> <li>In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit).</li> <li>Cool closed containers exposed to fire with water spray. Heating will cause a pressure rise – with risk of bursting. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.</li> </ul>
0 – Accidental release measure	s
	ective equipment and emergency procedures
Personal precautions	: Use personal protective equipment. Provide adequate ventilation. Keep away from heat and sources of ignition. Avoid contact with skin and eyes. Do not breathe vapours. For personal protection see Section 8.
2 – Environmental precautions	
Environmental precautions	: Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.
	ontainment and cleaning up
3 – Methods and materials for c	
3 – Methods and materials for of Methods and materials for containment and cleaning up	: Contain spillage, and then collect with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13).



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6.4 – Reference to other sections				
For personal protection see Section 8.				
7.0 – Handling and storage				
7.1 – Precautions for safe handling				
Advice on safe handling :	Keep container tightly closed. Ensure adequate ventilation. Avoid contact with skin and eyes. Do not breathe vapours. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.			
Hygiene measures :	Keep away from food, drink and animal feeding stuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of the working day. Take off all contaminated clothing immediately. Avoid contact with skin and eyes. Do not breathe vapours of spray mist.			
7.2 – Conditions for safe storage, ir	ncluding any incompatibilities			
Requirements for storage : areas and containers Advice on protection : against fire and explosion	original container. Combustible liquid. Keep away from sources of ignition – no smoking. Take measures to prevent the build-up of electrostatic charge. Vapours may form explosive mixtures in air. Use only in an area containing			
Further information on : storage conditions Advice on common : storage	explosion proof equipment. Keep tightly closed in a dry and cool place. Keep in a well-ventilated place. Keep away from heat. Keep away from direct sunlight. Incompatible with oxidizing agents. Keep away from food, drink and animal feeding stuffs.			
7.3 – Specific end uses				
Specific use(s) :	No information available.			
8.0 – Exposure controls/personal p	rotaction			
8.1 – Control parameters				

Component: ethanol; ethyl alcohol			CAS No. 64-17-5	
Other OELs				
Regulatory basis	:	UK. EH40 Workpla	ce Exposure Limits (WELs)	
Regulatory list	:	EH40 WEL		
Value type	:	Time Weighted Ave	erage (TWA):	
Value	:	1000 ppm		
Value	:	1920 mg/m <sup>3</sup>		

#### 8.2 – Exposure controls

#### **Engineering measures**

Refer to protective measures listed in Sections 7 and 8.



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Respiratory protection	)
Advice	<ul> <li>Required, if exposure limit is exceeded (e.g. OEL). Respirator with a gas filter. Recommended filter type: A.</li> </ul>
Hand protection	
Advice	<ul> <li>Wear suitable gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Protective gloves should be replaced at first signs of wear.</li> </ul>
Material Gloves Glove thickness	: Butyl-rubber : >= 8 h : 0.5 mm
Material Gloves Glove thickness	<ul> <li>Fluorocarbon rubber</li> <li>&gt;= 8 h</li> <li>0.4 mm</li> </ul>
Material Gloves Glove thickness	<ul> <li>Polychloroprene</li> <li>&gt;= 2 h</li> <li>0.5 mm</li> </ul>
Eye protection	
Advice	: Safety glasses.
Skin and body protect	tion
General advice	: Wear suitable protective clothing.
Environmental expos	sure controls
General advice	: Do not let product enter drains. If the product contaminates rivers and lakes or drains inform respective authorities.
FAIPMYEL/RED FAIPMBLK/WHI	PAINT MARKER PEN YELLOW & RED (2) PAINT MARKER PEN BLACK & WHITE (2)



**Multichem Ltd** 

## SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 (REACH) and (EC) No. 1272/2008 (CLP) *PM5 Paint Marker Ink (Pigmented) (colours listed in Section 16\*)*

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### 9.0 – Physical and chemical properties

### 9.1 – Information on basic physical and chemical properties

Appearance         Odour         Odour threshold         pH         Melting point / freezing point         Initial boiling point and boiling range         Flash point         Evaporation rate         Flammability         Upper/lower flammability or explosive limits         Vapour pressure         Vapour density         Relative density         Solubility         Partition coefficient: n-octanol/water         Auto-ignition temperature         Decomposition temperature         Viscosity         Explosive properties         Oxidising properties	<ul> <li>Various colours, liquid</li> <li>Alcohol-like</li> <li>Not determined</li> <li>6 to 8</li> <li>-114.5°C</li> <li>78.3°C</li> <li>12°C</li> <li>Not determined</li> <li>Not determined</li> <li>15% (V), 3.5% (V)</li> <li>59 hPa 20°C</li> <li>Not determined</li> <li>Not determined</li> <li>Mot determined</li> <li>Mot determined</li> <li>Mot determined</li> <li>Not determined</li> <li>Not determined</li> <li>Not determined</li> <li>Not determined</li> <li>Not determined</li> <li>Not determined</li> <li>15°C</li> <li>Not determined</li> <li>10 to 40cP (20°C)</li> <li>Not determined</li> </ul>
9.2 – Other information	

No further information available.

10.1 – Reactivity		
Advice	:	Stable under recommended storage conditions.
10.2 – Chemical stability		
Advice	:	Stable under normal conditions.
10.3 – Possibility of hazardous re	eact	tions
Hazardous reactions	:	No information available.
10.4 – Conditions to avoid		
Conditions to avoid	:	Heat, flames and sparks.
10.5 – Incompatible Materials		
Materials to avoid	:	Alkali metals, alkaline earth metals, strong oxidizing agents, nitric acid, sulphuric acid, peroxides (e.g. hydrogen peroxide).
10.6 – Hazardous decomposition	pro	oducts
Hazardous decomposition products	:	Under fire conditions: carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ).

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#### 11.0 – Toxicological information 11.1 – Information on toxicological effects Component: ethanol; ethyl alcohol CAS No. 64-17-5 Acute toxicity Oral Value type LD50 • Value 6200 mg/kg ÷ Species : rat Inhalation Value type LC50 Value 124.7 mg/kg Exposure time 4 h Species rat : Irritation Skin Remarks Degreases the skin, which may cause dryness. Prolonged or repeated : skin contact may result in dermatitis. Eves Remarks Splashes in eyes may cause strong pain. Vapour can cause irritation. : Sensitisation Remarks · Did not cause sensitisation on laboratory animals. **Further information** All numerical values for acute toxicity are calculated on the pure Other relevant toxicity : information substances. Experiences with human : Repeated and prolonged exposure to solvents may cause brain and exposure nervous system damage. 12.0 – Ecological information

### 12.1 – Toxicity

<b>Component: ethanol</b>	; ethyl alcohol	CAS No. 64-17-
Acute toxicity		
Fish		
Species	: Leuciscus idus (Golden orfe)	
Value type	: LC50	
Value	: 8150 mg/l	
Toxicity to daphnia a	and other aquatic invertebrates	
Species	: Daphnia magna	
Exposure time	: 48 h	
Value type	: EC50	
Value	: 9268 – 14221 mg/l	
Algae		
Species	: Scenedesmus quadricauda	
Exposure time	: 168 h	
Value type	: EC0	
Value	: 5000 mg/l	



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BacteriaSpecies:Value type:Value:Remarks:	Pseudomonas putide EC0 6500 mg/l Cell-proliferation inhibition test
12.2 – Persistence and degradability	۷
Component: ethanol; ethyl a	
Persistence and biodegrada	oility
Biodegradability Remarks :	Readily biodegradable
12.3 – Bioaccumulative potential	
No information available.	
12.4 – Mobility in soil	
Mobile in water environment.	
12.5 – Results of PBT and vPvB ass	essment
No information available.	
12.6 – Other adverse effects	
All numerical values for ecotor water or sanitary sewer syster	xicity effects are calculated on the pure substances. Do not flush into surface n. Avoid subsoil penetration.
13.0 – Disposal considerations	
13.1 – Waste treatment methods	
Product : Contaminated packaging :	Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not empty into drains. Contact waste disposal services. Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning. Packaging that cannot be cleaned is to
	be disposed of in the same manner as the product. Do not burn, or use a cutting torch on the empty drum. Risk of explosion.
European Waste : Catalogue Number	080312 – waste ink containing dangerous substances



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14.1 – UN number		
1993		
14.2 – UN proper shipping name		
ADR RID IMDG	:	Flammable Liquid n.o.s (contains ethanol) Flammable Liquid n.o.s (contains ethanol) Flammable Liquid n.o.s (contains ethanol)
14.3 – Transport hazard class(es)	)	
ADR-Class (Labels ; classification code ; hazard identification number ; tunnel restriction code) RID-Class (Labels ; classification code ; hazard identification number) IMDG-Class (Labels ; EmS)		3 3; F1; 33: (D/E) 3 3: F1; 33 3; (F-E, <u>S-E)</u>
(Labers , Ems) 14.4 – Packaging group	•	3 ; (F-E, <u>S-E)</u>
ADR RID	:	 
IMDG	:	II
14.5 – Environmental hazards		
Labelling according to 5.2.1.8 ADR Labelling according to	:	No
5.2.1.8 RID Labelling according to 5.2.1.6.3 IMDG	:	No
Classification as environmentally hazardous according to 2.9.3 IMDG	:	No
Classified as 'P' according to 2.10 IMDG	:	Νο
14.6 – Special precautions for us	er	
Not applicable.		
14.7 – Transport in bulk accordin	g to	o Annex II of MARPOL 73/78 and the IBC Code
IMDG	:	Not applicable.



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#### 15.0 – Regulatory information

### 15.1 – Safety, health and environmental regulations/legislation specific for the substance or mixture

No information available.

#### 15.2 – Chemical safety assessment

No information available.

#### 16.0 – Other information

16.1 – Full text of H-Statements referred to under Sections 2 and 3		
H225	: Highly flammable liquid and vapour.	
16.2 – Further information		
*Ink colour shades	<ul> <li>White 1-36, White 57A, Black, Blue 160B, Blue 166I, Blue 9-157B, Royal Blue 131A, Red 166H, Red 9-120, Orange 27D, Orange 88A, Yellow 51C, Yellow 2, Pink 10-050A, Green 10-050B, Green 87A, Green 131C, Lime Green 141A, Emerald 166D, Purple 160A, Brown 92A, Brown 10-65D Turquoise 10-068A, Green 10-068A, Orange 4241</li> </ul>	
Other information	<ul> <li>The information provided in this safety data sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this safety data sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.</li> </ul>	
HS Tariff Code	: 32159070	