

# Safety Data Sheet



according to Regulation (EC) No 1907/2006

Revision No: 10,0

GB - EN

Revision date: 03.02.2016

## **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

### **1.1. Product identifier**

**Ink**

**blue**

**74500013**

### **1.2. Relevant identified uses of the substance or mixture and uses advised against**

#### **Use of the substance/mixture**

Printing ink for use in industrial DOD inkjet printers

#### **Uses advised against**

This product is neither approved nor suitable for any other industrial, commercial or private use by the consumer other than the above identified use.

### **1.3. Details of the supplier of the safety data sheet**

Company name:	<b>Weber Marking Systems GmbH</b>
Street:	Maarweg 33
Place:	D- 53619 Rheinbreitbach
Telephone:	+49 (0)2224 77080
Telefax:	+49 (0)2224 770820
e-mail:	info@webermarking.de
Internet:	www.weber-marking.com

### **1.4. Emergency telephone number:**

outside USA/Canada: +49 – 700 - 24 112 112 (BSU)  
inside USA/Canada: 011 – 49 – 700 – 24 112 112 (BSU)

### **Further Information**

You should contact a doctor or a toxicological information centre if you suspect poisoning . The toxicological information centre provides free medical advice in the event of poisoning or a suspicion of poisoning to everyone around the clock.

Important questions for EMERGENCY:

- Who: - age, weight, sex of the person concerned, telephone number .: for recall.
- What: - All you can say about the involved agents.
- How much: - Try to estimate the maximum possible intake.
- When: - Try to get the time elapsed since the incident time estimate .
- What else: - First observed symptoms? First Measures taken?

## **SECTION 2: Hazards identification**

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## 2.1. Classification of the substance or mixture

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:

Flammable liquid: Flam. Liq. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Highly flammable liquid and vapour.

Causes serious eye irritation.

May cause drowsiness or dizziness.

## 2.2. Label elements

### Hazardous components which must be listed on the label

butanone; ethyl methyl ketone

1-methoxy-2-propanol; monopropylene glycol methyl ether

propan-2-ol; isopropyl alcohol; isopropanol

Signal word:

Danger

Pictograms:

GHS02-GHS07



### Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P240 Ground/bond container and receiving equipment.

P243 Take precautionary measures against static discharge.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## 2.3. Other hazards

In principle all chemicals are particularly dangerous. Therefore they are to be handled only by specially trained personnel with the necessary care. The disposal of this product requires the expertise resp. an annual instruction according to ChemVerbotsV.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Mixture of organic solvents, colorants, binders and additives.

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## **Hazardous components**

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
201-159-0	butanone; ethyl methyl ketone	85 - < 90 %
78-93-3	F - Highly flammable, Xi - Irritant R11-36-66-67	
606-002-00-3	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066	
203-539-1	1-methoxy-2-propanol; monopropylene glycol methyl ether	1 - 5 %
107-98-2	R10-67	
603-064-00-3	Flam. Liq. 3, STOT SE 3; H226 H336	
-	Cellulosenitrat < 12,6 nitrogen	1 - < 5 %
9004-70-0	E - Explosive R03	
	Expl. 1.1; H201	
304-661-9	C.I. Solvent Blue 70	1 - 5 %
94277-77-7	R52-53	
200-661-7	propan-2-ol; isopropyl alcohol; isopropanol	1 - < 5 %
67-63-0	F - Highly flammable, Xi - Irritant R11-36-67	
603-117-00-0	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	

Full text of R-, H- and EUH-phrases: see section 16.

## **SECTION 4: First aid measures**

### **4.1. Description of first aid measures**

#### **General information**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove contaminated, saturated clothing immediately. If victim is at risk of losing consciousness, position and transport on their side.

#### **After inhalation**

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Seek medical attention if problems persist.

#### **After contact with skin**

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation). Use protective skin cream before handling the product. In case of skin irritation, consult a physician.

#### **After contact with eyes**

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

#### **After ingestion**

Keep at rest. Rinse mouth thoroughly with water. Let water be drunk in little sips (dilution effect). Do NOT induce vomiting. Aspiration hazard. Do not give fatty oils and milk. Do not allow a neutralisation agent to be drunk. Call a physician immediately.

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## **4.2. Most important symptoms and effects, both acute and delayed**

SECTION 2: Hazards identification & SECTION 11: Toxicological information

## **4.3. Indication of any immediate medical attention and special treatment needed**

There are no data available on the mixture itself.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

In case of fire, use sand, extinguishing powder or alcohol resistant foam. Water fog. Atomized water.

#### **Unsuitable extinguishing media**

High power water jet.

### **5.2. Special hazards arising from the substance or mixture**

Carbon monoxide. CO Carbon dioxide (CO<sub>2</sub>). Vapours may form explosive mixtures with air. Reignition possible over considerable distance.

### **5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical resistant suit.

#### **Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Provide fresh air. Avoid contact with skin and eyes. Wear suitable protective clothing and eye/face protection. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used!

### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

### **6.3. Methods and material for containment and cleaning up**

Provide adequate ventilation. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Clean contaminated objects and areas thoroughly observing environmental regulations. Collect in closed and suitable containers for disposal. Treat the recovered material as prescribed in the section on waste disposal.

### **6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

Provide adequate ventilation as well as local exhaustion at critical locations. Vapours / aerosols should be extracted

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by suction directly at point of origin. Effective exhaust ventilation system according to 2001/59/EG (Annex 7A). See information supplied by the manufacturer. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Open and handle container with care. Keep container tightly closed.

## **Advice on protection against fire and explosion**

The vapours are heavier than air and can accumulate in high concentrations on the ground, in cavities, channels and cellars. In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop. Vapours can travel considerable distances to a source of ignition where they can ignite, flash back, or explode. Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharge.

## **7.2. Conditions for safe storage, including any incompatibilities**

### **Requirements for storage rooms and vessels**

Ensure adequate ventilation of the storage area. Keep only in the original container in a cool, well-ventilated place. Store small packages in a suitable, robust cabinet. Keep container tightly closed. Remove all sources of ignition. Recommended storage temperature: (+15 °C) - (+25 °C)

### **Advice on storage compatibility**

Do not store together with: Oxidising agent. Technical Rule 510 note.

### **Further information on storage conditions**

Protect against direct sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. The product is chemically stable under recommended conditions of storage, use and temperature. In case of exceeding the storage time: Product/Packaging disposal. Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

## **7.3. Specific end use(s)**

No information available.

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## **SECTION 8: Exposure controls/personal protection**

### **8.1. Control parameters**

#### **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
107-98-2	1-Methoxypropan-2-ol	100	375		TWA (8 h)	WEL
		150	560		STEL (15 min)	WEL
78-93-3	Butan-2-one (methyl ethyl ketone)	200	600		TWA (8 h)	WEL
		300	899		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

#### **Biological Monitoring Guidance Values (EH40)**

CAS No	Substance	Parameter	Value	Test material	Sampling time
78-93-3	Butan-2-one	butan-2-one	70 µmol/L	urine	Post shift

#### **Additional advice on limit values**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

### **8.2. Exposure controls**

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## Protective and hygiene measures

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin and eyes. Protect skin by using skin protective cream. Draw up and observe skin protection programme. Wash hands before breaks and after work. When using do not eat, drink or smoke.

### Eye/face protection

Tightly sealed safety glasses. DIN EN 166

### Hand protection

Wear protective gloves. Recommended material: Butyl caoutchouc (butyl rubber) Thickness of the glove material  $\geq$  0,5 mm. DIN EN 374. NR (natural rubber, natural latex) limited resistance using a maximum of 10 minutes. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The required protective gloves have to be specified by the glove material and the penetration time of the glove material depending on strength and duration of dermal exposition.

### Skin protection

Wear suitable protective clothing.

### Respiratory protection

Extended inhalation at levels above the workplace limit value can cause irreversible damage to the lungs. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

## SECTION 9: Physical and chemical properties

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

Physical state: liquid  
Colour: blue  
Odour: like: Solvent

#### Test method

pH-Value (at 20 °C): not determined DIN 19268

### Changes in the physical state

Initial boiling point and boiling range: 79 - 110 °C DIN 51751  
Flash point: -4 °C DIN 51755

### Explosive properties

not Explosive. Vapours may form explosive mixtures with air.

Lower explosion limits: 1,8 vol. % DIN 51649  
Upper explosion limits: 11,5 vol. % DIN 51649  
Ignition temperature: 514 °C DIN 51794  
Vapour pressure: 105 hPa DIN 51754  
(at 20 °C)  
Density (at 20 °C): 0,824 - 0,827 g/cm<sup>3</sup> ISO 2811

### Solubility in other solvents

mixable with most organic solvent cleaners

Viscosity / dynamic: 0,9 - 1,2 mPa·s DIN 53019  
(at 20 °C)

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## **SECTION 10: Stability and reactivity**

### **10.2. Chemical stability**

The mixture is chemically stable under recommended conditions of storage, use and temperature.

### **10.3. Possibility of hazardous reactions**

May form explosive peroxides. In use may form flammable/explosive vapour-air mixture. Vapours of flammable solvents can accumulate in the gas phase of closed container, especially during heat treatment. Therefore keep away from fire and sources of ignition.

### **10.4. Conditions to avoid**

Protect from sunlight. Store at temperatures not exceeding 35°C/95°F.

### **10.5. Incompatible materials**

Keep away from strong acids, leachates, heavy metal salts and reducing materials.

### **10.6. Hazardous decomposition products**

Carbon monoxide.(CO), Carbon dioxide (CO<sub>2</sub>). Peroxide

## **SECTION 11: Toxicological information**

### **11.1. Information on toxicological effects**

#### **ATEmix calculated**

ATE (oral) 358,9 mg/kg; ATE (dermal) 1100,0 mg/kg

#### **Acute toxicity**

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
78-93-3	butanone; ethyl methyl ketone				
	oral	LD50	3300 mg/kg	rat	
	dermal	LD50	5000 mg/kg	rabbit	
	inhalative (4 h) vapour	LC50	10000 mg/l	rat	
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether				
	oral	LD50	> 5000 mg/kg	Rat	IUCLID
	dermal	LD50	11000 mg/kg	Rabbit	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50	4570 mg/kg	rat	
	dermal	LD50	13400 mg/kg	rabbit	
	inhalative (4 h) vapour	LC50	30 mg/l	rat	

#### **Further information**

Prolonged/repetitive skin contact may cause skin defatting or dermatitis. Danger of cutaneous absorption. Inhalation causes narcotic effects/intoxication. Causes eye irritation. In case of eye contact. May cause damage to liver through prolonged or repeated exposure if inhaled. Ingestion causes nausea, weakness and central nervous system effects. Observe risk of aspiration if vomiting occurs.

## **SECTION 12: Ecological information**

### **12.1. Toxicity**



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CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h]   [d]	Species	Source
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether					
	Acute fish toxicity	LC50 mg/l	4600 - 10000	96 h	Leuciscus idus	IUCLID
	Acute algae toxicity	ErC50	> 1000 mg/l	72 h	Selenastrum capricornutum	
	Acute crustacea toxicity	EC50	> 500 mg/l	48 h	Daphnia magna	IUCLID

## **12.2. Persistence and degradability**

Product is partially biodegradable. Significant residues remain.

## **12.3. Bioaccumulative potential**

No data available

## **Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
78-93-3	butanone; ethyl methyl ketone	0,29
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether	-0,437
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	0,05

## **12.4. Mobility in soil**

No data available

## **12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## **12.6. Other adverse effects**

No data available

## **Further information**

The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see chapter 3).

## **SECTION 13: Disposal considerations**

### **13.1. Waste treatment methods**

#### **Advice on disposal**

Dispose of waste according to applicable legislation. Do not empty into drains; dispose of this material and its container in a safe way. Consult the appropriate local waste disposal expert about waste disposal. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

#### **Waste disposal number of waste from residues/unused products**

080312 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of printing inks; waste ink containing dangerous substances  
Classified as hazardous waste.

#### **Waste disposal number of used product**

080312 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of printing inks; waste ink containing dangerous substances  
Classified as hazardous waste.

## **SECTION 14: Transport information**

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## Land transport (ADR/RID)

<b>14.1. UN number:</b>	UN 1263
<b>14.2. UN proper shipping name:</b>	PAINT (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler and liquid lacquer base)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3



Classification code:	F1
Special Provisions:	163 640D 650
Limited quantity:	5 L
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E

## Other applicable information (land transport)

E2

## Inland waterways transport (ADN)

<b>14.1. UN number:</b>	UN 1263
<b>14.2. UN proper shipping name:</b>	PAINT (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler and liquid lacquer base)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3



Classification code:	F1
Special Provisions:	163 640D 650
Limited quantity:	5 L

## Other applicable information (inland waterways transport)

E2

## Marine transport (IMDG)

<b>14.1. UN number:</b>	UN 1263
<b>14.2. UN proper shipping name:</b>	PAINT (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler and liquid lacquer base)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3

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Special Provisions: 163  
Limited quantity: 5 L  
EmS: F-E, S-E

## Other applicable information (marine transport)

E2

### **Air transport (ICAO)**

**14.1. UN number:** UN 1263

**14.2. UN proper shipping name:** PAINT (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler and liquid lacquer base)

**14.3. Transport hazard class(es):** 3

**14.4. Packing group:** II

Hazard label: 3



Special Provisions: A72  
Limited quantity Passenger: 1 L  
IATA-packing instructions - Passenger: 353  
IATA-max. quantity - Passenger: 5 L  
IATA-packing instructions - Cargo: 364  
IATA-max. quantity - Cargo: 60 L

## Other applicable information (air transport)

E2

Passenger-LQ: Y341

## **SECTION 15: Regulatory information**

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

#### **EU regulatory information**

2010/75/EU (VOC): 95,943 % (790,573 g/l)

2004/42/EC (VOC): 95,943 % (790,573 g/l)

#### **National regulatory information**

Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing. Observe employment restrictions for women of child-bearing age.

Water contaminating class (D): 2 - water contaminating

#### **Additional information**

For use in industrial installations or professional treatment only.

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## **15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

## **SECTION 16: Other information**

### **Abbreviations and acronyms**

DOD Drop-on-Demand Printer

### **Relevant H- and EUH-phrases (Number and full text)**

H201	Explosive; mass explosion hazard.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

### **Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

The product should only be handled by persons over the age of 18, who were informed sufficiently about the dangerous nature of the product and about the necessary safety precautions.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*