according to Regulation (EC) No 1907/2006

Revision No: 20,1 - Replaces version: 20

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

1.1. Product identifier

Ink

brown

GB - EN

<u>71202133</u>

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:	Matthews Swedot AB	
Street:	Möbelgatan 4	
Place:	S-431 33 Mölndal	
Telephone:	+ 46 31 338 7900	Telefax:+ 46 31 845117
e-mail:	info@matthews.se	
Contact person:	Kerstin Eriksson	Telephone: + 46 31 3387932
e-mail:	Kerstin.eriksson@matthews.se	
Internet:	www.matthewsmarking.com	
1.4. Emergency telephone	112 SOS Alarm, Giftinformationscentralen:	+ 46(0)8-331231

number:

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

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories: Flammable liquid: Flam. Liq. 3 Serious eye damage/eye irritation: Eye Irrit. 2 Hazard Statements: Flammable liquid and vapour. Causes serious eye irritation.

2.2. Label elements

Regulation (EC) No. 1272/2008 Signal word: Warning



Revision date: 27.08.2020

according to Regulation (EC) No 1907/2006

Revision No: 20,1 - Replaces version: 20

GB - EN

Revision date: 27.08.2020

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Hazard statements

Pictograms:

H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P235	Store in a well-ventilated place. Keep cool.
On a stal tab alling of	

Special labelling of certain mixtures

Restricted to professional users.

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.

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification	•	•	
64-17-5	ethanol; ethyl alcohol			25 - < 30 %
	200-578-6	603-002-00-5	01-2119457610-43	
Flam. Liq. 2, Eye Irrit. 2; H225 H319				

Full text of H and EUH statements: 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). Take off immediately all contaminated clothing. If victim is at risk of losing consciousness, position and transport on their side.

After inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Put victim at rest, cover with a blanket and keep warm. Call a physician immediately.

After contact with skin

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Use protective skin cream before handling the product. In case of skin irritation, consult a physician.

according to Regulation (EC) No 1907/2006

Revision No: 20,1 - Replaces version: 20

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. Call a physician immediately.

After ingestion

Keep at rest. Rinse mouth thoroughly with water. Let water be drunken 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.

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

After eye contact: Causes serious eye irritation. The following symptoms may occur: Pain or irritation. Conjunctival redness.

Following inhalation: May cause drowsiness or dizziness. The following symptoms may occur: Headaches and dizziness may occur, proceeding to fainting or unconsciousness.

Following skin contact: The product is skin resorptive. The following symptoms may occur: Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

After ingestion: Ingestion causes nausea, weakness and central nervous system effects.

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

Treat symptomatically. Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

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

Beware of reignition. Highly flammable liquid and vapour. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. In case of fire may be liberated: Carbon dioxide (CO2). Carbon monoxide. Nitrogen oxides (NOx).

5.3. Advice for firefighters

The danger areas must be delimited and identified using relevant warning and safety signs. Remove affected person from the danger area and lay down. Fight fire with normal precautions from a reasonable distance. Move undamaged containers from immediate hazard area if it can be done safely. Use water spray jet to protect personnel and to cool endangered containers.

Additional information

Wear a self-contained breathing apparatus and chemical resistant suit. Use water spray jet to minimise or disperse vapours. Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Do not breathe gas/vapour/aerosol. Provide fresh air. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Remove all sources of ignition. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

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. Explosive.



GB - EN

according to Regulation (EC) No 1907/2006

Revision No: 20,1 - Replaces version: 20

GB - EN

Revision date: 27.08.2020

6.3. Methods and material for containment and cleaning up

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

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

Wear personal protection equipment (refer to section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation as well as local exhaustion at critical locations. Vapours / aerosols should be extracted by suction directly at point of origin. In case of insufficient ventilation, wear suitable respiratory equipment. Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

Advice on protection against fire and explosion

This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment). Only use the material in places where open light, fire and other flammable sources can be kept away. 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 discharges.

Further information on handling

When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Store in a place accessible by authorized persons only. Store small packages in a suitable, robust cabinet. Store packaging and ignitable materials separately. Ensure adequate ventilation of the storage area. Protect against direct sunlight. Keep only in the original container in a cool, well-ventilated place. Take care when re-opening already used containers. Keep container tightly closed. Remove all sources of ignition. Recommended storage temperature: (+15 °C) - (+25 °C). The product is chemically stable under recommended conditions of storage, use and temperature. In case of exceeding the storage time: Product/Packaging disposal.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs. Do not store together with: Oxidising agent.

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2, there are no other specific uses.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
56-81-5	Glycerol, mist	-	10		TWA (8 h)	WEL

Revision No: 20,1 - Replaces version: 20

GB - EN

Revision date: 27.08.2020

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DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
64-17-5	ethanol; ethyl alcohol			
Consumer DN	EL, long-term	oral	systemic	87 mg/kg bw/day
Worker DNEL	, long-term	dermal	systemic	343 mg/kg bw/day
Consumer DN	EL, long-term	dermal	systemic	206 mg/kg bw/day
Worker DNEL	, long-term	inhalation	systemic	950 mg/m³
Consumer DN	EL, long-term	inhalation	systemic	114 mg/m ³

PNEC values

CAS No	Substance			
Environmenta	l compartment	Value		
64-17-5	ethanol; ethyl alcohol			
Freshwater		0,96 mg/l		
Marine water		0,79 mg/l		
Freshwater sediment 3,6 mg/kg		3,6 mg/kg		
Marine sediment 2,9 mg/k		2,9 mg/kg		
Micro-organisms in sewage treatment plants (STP)		580 mg/l		
Soil		0,63 mg/kg		

Additional advice on limit values

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

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations. This product is not to be used under conditions of poor ventilation. Use explosion-proof ventilating equipment.

Protective and hygiene measures

Wash hands before breaks and after work. Take off contaminated clothing and wash it before reuse.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

Recommended: gloves DIN EN374 B. Butyl caoutchouc (butyl rubber) Thickness of the glove material >= 0,7 mm. By short-term hand contact can be used: NR (Natural rubber (Caoutchouc), Natural latex). NBR (Nitrile rubber). Gloves should be replaced regularly and if there is any sign of damage to the glove material. Use gloves only once. 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

according to Regulation (EC) No 1907/2006

Revision No: 20,1 - Replaces version: 20

GB - EN

190).

Environmental exposure controls

Avoid release to the environment. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties Physical state: liquid Colour: brown Odour: like: Solvent Test method DIN 19268 pH-Value (at 20 °C): Changes in the physical state Melting point: not determined Initial boiling point and boiling range: 78 - 110 °C DIN 51751 Sublimation point: not applicable Flash point: 27 °C DIN 51755 **Explosive properties** Product is not explosive. However, formation of explosive air/vapourmixtures is possible. 3,5 vol. % DIN 51649 Lower explosion limits: 15 vol. % DIN 51649 Upper explosion limits: 425 °C DIN 51794 Ignition temperature: 59 hPa DIN 51754 Vapour pressure: (at 20 °C) Density (at 20 °C): 0,974 - 0,976 g/cm3 ISO 2811 Solubility in other solvents mixable with most organic solvent cleaners 3.4 - 3.7 mPa·s DIN 53019 Viscosity / dynamic:

(at 20 °C)

SECTION 10: Stability and reactivity

10.1. Reactivity

Vapours may form explosive mixtures with air.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

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

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

10.5. Incompatible materials

plastic and rubber

10.6. Hazardous decomposition products

Carbon monoxide.(CO), Carbon dioxide (CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects



Revision No: 20,1 - Replaces version: 20

GB - EN

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Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
64-17-5	ethanol; ethyl alcohol					
	oral	LD50 mg/kg	6200	Rat	IUCLID	
	inhalation (4 h) vapour	LC50	95,6 mg/l	Rat	RTECS	

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Further information

Prolonged/repetitive skin contact may cause skin defattening 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

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
64-17-5	ethanol; ethyl alcohol					
	Acute fish toxicity	LC50 8140 mg/l	96 h	Leuciscus idus)	IUCLID	
	Acute crustacea toxicity	EC50 9000 14000 mg/l	- 48 h	Daphnia magna	IUCLUID	

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
64-17-5	ethanol; ethyl alcohol	-0,31

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.

according to Regulation (EC) No 1907/2006

Revision No: 20,1 - Replaces version: 20

12.6. Other adverse effects

Discharge into the environment must be avoided.

Further information

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation. 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.

GB - EN

Contaminated packaging

Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)	
<u>14.1. UN number:</u>	UN 1263
14.2. UN proper shipping name:	Paint
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3
Classification code:	F1
Special Provisions:	163 367 640E 650
Limited quantity:	5 L
Excepted quantity:	E1 3
Transport category: Hazard No:	30
Tunnel restriction code:	D/E
Inland waterways transport (ADN)	
14.1. UN number:	UN 1263
	Paint
14.2. UN proper shipping name:	3
14.3. Transport hazard class(es):	C C
14.4. Packing group:	
Hazard label:	3
Classification code:	F1
Special Provisions:	163 367 640E 650
Limited quantity:	5 L
Excepted quantity:	E1
Marine transport (IMDG)	
<u>14.1. UN number:</u>	UN 1263
14.2. UN proper shipping name:	Paint
<u>14.3. Transport hazard class(es):</u>	3



Revision date: 27.08.2020



Revision No: 20,1 - Replaces version: 20	GB - EN	Revision date: 27.08.20
14.4. Packing group:	III	
Hazard label:	3	
Special Provisions: Limited quantity:	163, 223, 367, 955 5 L	
Excepted quantity:	E1	
EmS:	F-E, S-E	
Air transport (ICAO-TI/IATA-DGR)		
I4.1. UN number:	UN 1263	
I4.2. UN proper shipping name:	Paint	
I4.3. Transport hazard class(es):	3	
I4.4. Packing group:	III	
Hazard label:	3	
	3	
Special Provisions:	A3 A72 A192	
_imited quantity Passenger:	10 L	
Passenger LQ:	Y344	
Excepted quantity:	E1	
ATA-packing instructions - Passenger: ATA-max. quantity - Passenger:	355 60 L	
ATA-max. quantity - Passenger. ATA-packing instructions - Cargo:	366	
ATA-packing instructions - Cargo: ATA-max. quantity - Cargo:	220 L	
I4.6. Special precautions for user		
No special measures are necessary.		
14.7. Transport in bulk according to Annex	x II of Marpol and the IBC Code	
This information is not available.		
SECTION 15: Regulatory information		
15.1. Safety, health and environmental reg	ulations/legislation specific for the substance	or mixture
EU regulatory information		
2010/75/EU (VOC):	26,8 % (261,032 g/l)	
2004/42/EC (VOC):	25,4 % (247,396 g/l)	
nformation according to 2012/18/EU	P5c FLAMMABLE LIQUIDS	
SEVESO III):		
National regulatory information		
Employment restrictions:	Observe restrictions to employment for juver	
	work protection guideline' (94/33/EC). Obser	
	under the Maternity Protection Directive (92/	
	nursing mothers. Observe employment restri	ictions for women of
Nater hazard class (D):	child-bearing age. 1 - slightly hazardous to water	

For use in industrial installations or professional treatment only.

15.2. Chemical safety assessment

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

Revision No: 20,1 - Replaces version: 20

GB - EN

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SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 7,15.

Abbreviations and acronyms

DOD Drop-on-Demand Printer

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

	Classification	Classification procedure
	Flam. Liq. 3; H226	On basis of test data
	Eye Irrit. 2; H319	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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

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