Safety Data Sheet

according to Regulation (EC) No 1907/2006 ARICI INKJET Revision No: 11,6 GB - EN Revision date: 20.12.2018

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

1.1. Product identifier

Ink black

SIA0915

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 CIJ 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:	ARICI INKJET
Street:	Küferstr. 15
Place:	D-73257 Köngen
Telephone:	++ 49 (0) 7024 4095313
Telefax:	++ 49 (0) 32121039926
e-mail:	arici@gmx.com
Internet:	www.druckerpatronentankstellen.de
Contact person:	Davut Arici
Telephone:	++ 49 (0) 7024 4095313
Responsible Department:	Email: arici@gmx.com

1.4. Emergency telephone number:

Tel.: + + 49 (0) 6131 - 19240

Toxicological information center (Mainz / Germany)

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

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

Hazard categories:
Flammable liquid: Flam. Liq. 2
Hazard Statements:
Highly flammable liquid and vapour.

2.2. Label elements

Signal word: Danger
Pictograms: GHS02

Hazard statements

H225	Highly flammable liquid and vapour.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P403+P235	Store in a well-ventilated place. Keep cool.

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

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		
200-578-6	ethanol, ethyl alcohol	80 - < 85 %
64-17-5	F - Highly flammable R11	

603-002-00-5	Flam. Liq. 2; H225	
200-659-6	methanol	1 - < 5 %
67-56-1	F - Highly flammable, T - Toxic R11-23/24/25-39/23/24/25	
603-001-00-X	Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT SE 1; H225 H331 H311 H301 H370 **	
203-550-1	4-methylpentan-2-one, isobutyl methyl ketone	1 - < 5 %
108-10-1	F - Highly flammable, Xn - Harmful, Xi - Irritant R11-20-36/37-66	
606-004-00-4	Flam. Liq. 2, Acute Tox. 4, Eye Irrit. 2, STOT SE 3; H225 H332 H319 H335 EUH066	

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 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

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 (CO2). 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 articles and floor according to the environmental legislation. 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 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. Handle and open 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 discharges.

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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
108-10-1	4-Methylpentan-2-one	50	208		TWA (8 h)	WEL
		100	416		STEL (15 min)	WEL
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
67-56-1	Methanol	200	266		TWA (8 h)	WEL
		250	333		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
108-10-1	4-methylpentan-2-one	4-methylpentan-2-one	20 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

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 >= 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:	black	
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:	78 - 110 °C	DIN 51751
Flash point:	12 °C	DIN 51755

Explosive properties

Product is not explosive. However, formation of explosive air/vapourmixtures is possible.

Lower explosion limits:	3,5 vol. %	DIN 51649
Upper explosion limits:	15 vol. %	DIN 51649
Ignition temperature:	425 °C	DIN 51794
Vapour pressure: (at 20 °C)	59 hPa	DIN 51754
Density (at 20 °C):	0,899 - 0,903 g/cm³	ISO 2811

Solubility in other solvents

mixable with most organic solvent cleaners

Viscosity / dynamic: (at 20 °C)	1,75 mPa·s	DIN 53019

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

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 (CO2). Peroxides

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Method	Dose	Species	Source
64-17-5	ethanol, ethyl alcohol				
	oral	LD50	6200 mg/kg	Rat	IUCLID
	inhalative (4 h) vapour	LC50	95,6 mg/l	Rat	RTECS
67-56-1	methanol				
	oral	LD50	5900 mg/kg	rat	
	dermal	LD50	20000 mg/kg	rabbit	
	inhalative vapour	ATE	3 mg/l		
	inhalative aerosol	ATE	0,5 mg/l		
108-10-1	4-methylpentan-2-one, isobutyl methyl ketone				
	oral	LD50	2080 mg/kg	@N11.P0000002	RTECS
	dermal	LD50	>16000 mg/kg	@N11.P0000003	IUCLID
	inhalative vapour	ATE	11 mg/l		
	inhalative aerosol	ATE	1,5 mg/l		

Irritation and corrosivity

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

Sensitising effects

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

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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.

Aspiration hazard

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

Further information

Prolonged/repetitive skin contact may cause skin defattening or dermatitis. 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	Method	Dose	[h] | [d]	Species	Source
64-17-5	ethanol, ethyl alcohol					
	Acute crustacea toxicity	EC50	9268 - 14221 mg/l	48 h	Daphnia magna	IUCLID
108-10-1	4-methylpentan-2-one, isobutyl nethyl ketone					
	Acute fish toxicity	LC50	505 - 540 mg/l	96 h	Pimephales promelas	
	Acute algae toxicity	ErC50	400 mg/l	96 h	Selenastrum capricornutum	
	Acute crustacea toxicity	EC50	170 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
64-17-5	ethanol, ethyl alcohol	-0,31
108-10-1	4-methylpentan-2-one, isobutyl methyl ketone	1,31

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.

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 section 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.

Contaminated packaging

Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)

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

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)

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

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

Other applicable information (inland waterways transport)

E2

Marine transport (IMDG)

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

Other applicable information (marine transport)

E2

Air transport (ICAO-TI/IATA-DGR)

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):	72,222 % (649,278 g/l)
2004/42/EC (VOC):	73,822 % (663,662 g/l)

National regulatory information

Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.
Water contaminating class (D):	2 - clearly water contaminating

Additional information

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.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,9,11,14.

Abbreviations and acronyms

CIJ: Continuos Inkjet Printer

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H370	Causes damage to organs.
EUH066	Repeated exposure may cause skin dryness or cracking.

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.)