

according to Regulation (EC) No 1907/2006, Article 31, as modified by Regulation (EU) No 2015/830

Edition 2 Revision N° 1

Revision: 3/5/2017, Printing date : 3/5/2017

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

1.1. Product identifier Mixture identification:

Trade name: DIGISTAR LIQUID FOR CAPPING

Trade code: M408703L000250

1.2. Relevant identified uses of the substance or mixture and uses advised against Recommended use:

Auxiliary for inks

Uses advised against:

All those who are not listed in the recommended uses

1.3. Details of the supplier of the safety data sheet Company:

JK GROUP S.p.A. a Socio Unico

SP 32, Novedratese, 33

22060 Novedrate (CO), IT Ph.

+39 031 2074400

www.kiiandigital.com

Competent person responsible for the safety data sheet:

safety@j-k-group.com

1.4. Emergency telephone number

New Zealand: **0800 POISON** (0800 764 766)

Supplier Details

Hitec-Ink

Unit 4 / 231 Annex Road

Middleton 8025

Ph 03 6660100

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

⚠ Warning, Skin Irrit. 2, Causes skin irritation.

⚠ Danger, Eye Dam. 1, Causes serious eye damage.

Adverse physicochemical, human health and environmental effects: No other hazards 2.2. Label elements Hazard pictograms:



Danger

Hazard statements:

H315 Causes skin irritation.

H318 Causes serious eye damage.

Precautionary statements:

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

P302+P352 IF ON SKIN: Wash with plenty of water.

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

P310 Immediately call a POISON CENTER/doctor/...

P362+P364 Take off contaminated clothing and wash it before reuse. Special

Provisions:

None

Contains

lactic acid

2-aminoethanol; ethanolamine

Alcohols(C11-C13-branched)ethoxylates

Special provisions according to Annex XVII of REACH and subsequent amendments: None

2.3. Other hazards vPvB Substances: None - PBT Substances:

None Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
3% <= x < 5%	lactic acid	CAS: EC: 79-33-4 201-196-2	⚠3.2/2 Skin Irrit. 2 H315 ⚠ 3.3/1 Eye Dam. 1 H318
1% <= x < 3%	1-methoxy-2-propanol; monopropylene glycol methyl ether	Index number: 603-064-00-3 CAS: 107-98-2 EC: 203-539-1	⚠2.6/3 Flam. Liq. 3 H226 ⚠3.8/3 STOT SE 3 H336
1% <= x < 3%	2-aminoethanol; ethanolamine	Index number: 603-030-00-8 CAS: 141-43-5 EC: 205-483-3	⚠3.1/4/Inhal Acute Tox. 4 H332 ⚠3.1/4/Dermal Acute Tox. 4 H312 ⚠3.1/4/Oral Acute Tox. 4 H302 ⚠3.2/1B Skin Corr. 1B H314
1% <= x < 3%	Alcohols(C11- C13branched)ethoxylates	CAS: EC: 68439-54-3 931-985-3	⚠3.1/4/Oral Acute Tox. 4 H302 ⚠3.3/1 Eye Dam. 1 H318

Note: Upper limit is not included into the range. The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4: First aid measures

4.1. Description of first aid measures Contact with skin:

OBTAIN IMMEDIATE MEDICAL ATTENTION.



Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

Contact with eyes:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
Protect uninjured eye.

Swallowing:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

Inhalation:

Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended extinguishers:

Water, CO₂, Foam, Chemical powders, according to the materials involved in the fire.

Extinguishing media which must not be used for safety reasons: None in particular.

5.2. Special hazards arising from the substance or mixture Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage



7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

Adopt good working practices, so that the product is not released into the environment. See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises: Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

EU - TWA(8h): 375 mg/m³, 100 ppm - STEL: 563 mg/m³, 150 ppm - Notes: Skin

ACGIH - TWA(8h): 50 ppm - STEL: 100 ppm - Notes: A4 - Eye and URT irr

2-aminoethanol; ethanolamine - CAS: 141-43-5

EU - TWA(8h): 2.5 mg/m³, 1 ppm - STEL: 7.6 mg/m³, 3 ppm - Notes: Skin ACGIH
- TWA(8h): 3 ppm - STEL: 6 ppm - Notes: Eye and skin irr DNEL Exposure Limit Values N.A.
PNEC Exposure Limit Values N.A.

8.2. Exposure controls Eye protection:

Safety glasses for protection against chemicals (EN166).

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Wear suitable gloves tested to EN374.

Respiratory protection:

Not needed for normal use.

Thermal Hazards: None

Environmental exposure controls: None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance:	liquid	--	--
Colour:	transparent	--	--
Odour:	mild	--	--
Odour threshold:	not available	--	--
pH:	8 - 9	--	@ 25 °C
Melting point / freezing point:	not available	--	--
Initial boiling point and boiling range:	> 100°C / 212 °F	--	--
Flash point:	> 130 °C / 266 °F	--	--
Evaporation rate:	not available	--	--
Solid/gas flammability:	not applicable	--	Not applicable, it's a liquid
Upper/lower flammability or explosive limits:	not available	--	--
Vapour pressure:	not available	--	--
Vapour density:	not available	--	--
Relative density:	1.100 - 1.150	--	@ 25 °C
Solubility in water:	soluble	--	--
Solubility in oil:	not available	--	--
Partition coefficient (n-octanol/water):	not available	--	--
Auto-ignition temperature:	not available	--	--
Decomposition temperature:	not available	--	--
Viscosity:	1 - 10 cPs	--	@ 25 °C



Explosive properties:	not applicable	Regulation (EC) No 1907/ 2006, Annex	no chemical groups associated with explosive properties
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			VII, Column 2, point 7.11		
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Oxidizing properties:	not applicable	Regulation (EC) No 1907/2006, Annex VII, Column 2, point 7.13	the product is incapable of reacting exothermically with combustible materials
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9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	miscible	--	--
Fat Solubility:	not available	--	--
Conductivity:	not available	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials None in particular.

10.6. Hazardous decomposition products None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects Toxicological information of the product:

DIGISTAR LIQUID FOR CAPPING

a) acute toxicity

Not classified

Based on calculation method, the classification criteria are not met b) skin

corrosion/irritation

The product is classified: Skin Irrit. 2 H315

c) serious eye damage/irritation

The product is classified: Eye Dam. 1 H318

d) respiratory or skin sensitisation

Not classified

Based on calculation method, the classification criteria are not met

e) germ cell mutagenicity

Not classified

Based on calculation method, the classification criteria are not met f)

carcinogenicity

Not classified

Based on calculation method, the classification criteria are not met g)

reproductive toxicity

Not classified

Based on calculation method, the classification criteria are not met h)

STOT-single exposure

Not classified

Based on calculation method, the classification criteria are not met

i) STOT-repeated exposure

Not classified

Based on calculation method, the classification criteria are not met j)

aspiration hazard

Not classified

Based on calculation method, the classification criteria are not met

Toxicological information of the main substances found in the product: Alcohols(C11-C13-branched)ethoxylates - CAS: 68439-54-3 a) acute toxicity:

Test: LD50 - Route: oral - Species: rat > 300 mg/kg

Test: LD50 - Route: dermal - Species: rabbit > 2000 mg/kg

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2 LD50 (RABBIT) ORAL: 8 G/KG (8000 MG/KG)

2-aminoethanol; ethanolamine - CAS: 141-43-5

LD50 (RAT) ORAL: 2100 MG/KG

LD50 (RABBIT) SKIN: 1000 MG/KG

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological information of the product:

DIGISTAR LIQUID FOR CAPPING

Not classified for environmental hazards

Based on calculation method, the classification criteria are not met Ecotoxicological

information of the main substances found in the product:

Alcohols(C11-C13-branched)ethoxylates - CAS: 68439-54-3

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 1 mg/l - Duration h: 96 - Notes: Cyprinus carpio b) Aquatic

chronic toxicity:

Endpoint: EC50 - Species: Daphnia > 1 mg/l - Duration h: 48 - Notes: Daphnia magna c)

Bacteria toxicity:

Endpoint: EC50 - Species: JK01 140 mg/l

d) Terrestrial toxicity:

Endpoint: NOEC 10 mg/kg - Notes: Lepidium sativum e)

Plant toxicity:

Endpoint: EC50 - Species: Algae > 1 mg/l - Duration h: 72 - Notes: Desmodemus subspicatus



12.2. Persistence and degradability

Alcohols(C11-C13-branched)ethoxylates - CAS: 68439-54-3

Biodegradability: Readily biodegradable - Test: N.A. - Duration: N.A. - %: N.A. - Notes: N.A.

12.3. Bioaccumulative potential N.A.

12.4. Mobility in soil N.A.

12.5. Results of PBT and vPvB assessment vPvB Substances:

None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force. Dispose of waste product or used containers according to local regulations.

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number

ADR-UN number: not applicable IATA-Un number:

not applicable

IMDG-Un number: not applicable

14.2. UN proper shipping name

ADR-Shipping Name: not applicable IATA-Shipping Name:

not applicable IATA-Technical name: not applicable

IMDG-Shipping Name: not applicable

IMDG-Technical name: not applicable

14.3. Transport hazard class(es)

ADR-Class: not applicable ADR-Label: not

applicable IATA-Class: not applicable IATA-Label:

not applicable IMDG-Class: not applicable

IMDG-Label: not applicable

14.4. Packing group

ADR-Packing Group: not applicable

IMDG-Packing group: not applicable

14.5. Environmental hazards

ADR-Environmental Pollutant: No

IMDG-Marine pollutant: No

14.6. Special precautions for user

ADR-Tunnel Restriction Code: not applicable

Rail (RID): not applicable

IATA-Cargo Aircraft: not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) 2015/830

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restriction 40

Restrictions related to the substances contained: No restriction.

Volatile Organic compounds - VOCs = 2.97 %

Volatile Organic compounds - VOCs = 29.70 g/Kg

Volatile CMR substances = 0.00 %

Halogenated VOCs which are assigned the risk phrase R40 = 0.00 %

Organic Carbon - C = 1.17

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Full text of phrases referred to in Section 3:

H315 Causes skin irritation.

H318 Causes serious eye damage.

H226 Flammable liquid and vapour.

H336 May cause drowsiness or dizziness.

H332 Harmful if inhaled.

H312 Harmful in contact with skin.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

Hazard class and hazard category	Code	Description
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Acute Tox. 4	3.1/4/Dermal	Acute toxicity (dermal), Category 4
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3

This safety data sheet has been completely updated in compliance to Regulation 2015/830.
Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

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CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.



EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.