

SAFETY DATA SHEET

Page 1 of 6

Quicktest approx. 38 mN/m
According to 91 / 155 EEC, art.-no. 40.55100.0

Reviewed on: March 17, 2005

1. Name of substance, preparation and company

Information about the product

Commercial name:

Quicktest approx. 38 mN/m – test ink / test pen

Recommended use:

Checking the surface energy of film surfaces – especially with polyethylene

Information about the manufacturer/supplier:

Company

arcotest GmbH
Rotweg 25, D-71297 Mönsheim

Contact for information

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2. Chemical analysis/information about the ingredients

Chemical characterisation

Solvent mixture with colouring agent and additives.

Dangerous ingredients which are injurious to health within the meaning of Commission Directive 67 / 548 / EEC on dangerous substances:			
CAS: 64-17-5 EINECS: 200-578-6	ethanol	F; R 11	75-100 %
CAS: 989-38-8 EINECS: 213-584-9	C.I. Basic Red I	Xn, N; R 22-41-51/53	≤ 5,0 %
CAS: 141-78-6 EINECS: 205-500-4	Ethyl acetate	Xi, F; R 11-36-66-67	≤ 2,5 %

Additional information:

For the wording of the listed risk phrases refer to section 16.

3. Hazards identification

Hazard designation:

F Highly flammable

Information pertaining to particular dangers for man and environment:

R 11 Highly flammable

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. First aid measures

General information:

When symptoms persist or in all cases of doubt seek medical advice. Never give anything by mouth to an unconscious person.

After inhalation:

Remove to fresh air.

Keep patient warm and at rest.

If breathing is irregular or stopped, seek medical advice immediately and administer artificial respiration.

If unconscious place in recovery position and seek medical advice.

After skin contact:

Remove contaminated clothing immediately.

Wash skin thoroughly with soap and water or use recognized skin cleanser.

Do NOT use solvents or thinners.

After eye contact:

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Remove contact lenses. Seek medical advice.

SAFETY DATA SHEET

Page 2 of 6

Quicktest approx. 38 mN/m

According to 91 / 155 EEC, art.-no. 40.55100.0

Reviewed on: March 17, 2005

After swallowing:

If accidentally swallowed obtain immediate medical attention!
Keep at rest.
Do NOT induce vomiting.

5. Fire fighting measures

Suitable extinguishing agents:

Foam (alcohol resistant), CO₂, powders, water spray if applied under high pressure.

Special hazards caused by the material, its products of combustion or flue gases:

Fire will produce dense black smoke.
Exposure to hazardous decomposition products may cause a health hazard.
Appropriate breathing apparatus may be required.
Cool closed containers exposed to fire with water spray.

Additional information:

Collect run-off from fire fighting.

6. Accidental release measures

Person-related safety precautions:

Keep away from sources of ignition .
Ensure supply of fresh air in concerned area.
Avoid breathing vapours.
Refer to protective measures listed in sections 7 and 8.

Measures for environmental protection:

Do not allow to enter drains.
If the product contaminates rivers and lakes or sewages inform the respective authorities.

Measures for cleaning / collecting:

Contain and collect spillage with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local regulations.
Clean preferably with a detergent.
Avoid use of solvents.

7. Handling and storage

Handling:

Information for safe handling:

Prevent the creation of flammable or explosive concentrations of vapour and avoid vapour concentrations higher than the occupational exposure limits..
The product should only be used in areas from which all naked lights and other sources of ignition have been excluded.
When transferring from one container to another apply earthing measures and use conductive flexible hoses ((see "directives relatives to the avoidance of ignition hazards due to electrostatic charge" ZH 1/200).
Preparation may charge electrostatically.
No sparking tools should be used.
Avoid skin and eye contact.
Smoking, eating and drinking should be prohibited during work.
For personal protection see section 8.
Comply with health and safety at work laws.
Avoid breathing vapours.

Information about protection against explosions and fires:

Solvent vapours are heavier than air and may spread along floors.
Vapours may form explosive mixtures with air.

SAFETY DATA SHEET

Page 3 of 6

Quicktest approx. 38 mN/m

According to 91 / 155 EEC, art.-no. 40.55100.0

Reviewed on: March 17, 2005

Storage:

Requirements to be met by storerooms and containers:

Electrical installations/working materials must comply with the technological safety standards, e.g. DIN 57165/VDE 0165 "Electrical working materials in explosion hazard areas".

Storage rooms in which filling operations take place (EX-zone 1) must have a conducting floor. The bleeder resistance must be lower than 10^8 ohm (see section 6.4 ZH 1 / 200).

Keep containers tightly closed.

Never use pressure to empty: container is not a pressure vessel!

No smoking.

Prevent unauthorized access.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Electrical installations/working materials must comply with the technological safety standards, e.g. DIN 57165/VDE 0165 "Electrical working materials in explosion hazard areas".

Information about storage in one common storage facility:

Keep well away from oxidizing agents and strongly alkaline or strongly acid materials..

Further information about storage conditions:

Always keep in containers of the same material as the original one.

Store at a dry, well ventilated place.

Keep away from heat and direct sunlight.

Exclude sources of ignition.

Observe label precautions.

Store in accordance with the particular national regulations concerning storage of combustible Liquids (VbF).

Store in accordance with the particular national regulations concerning water pollution (WHG) and the regional regulations concerning storage of water hazardous substances (VawS).

Classification according to regulation about safety in operation (Germany Betr.SichV): Highly flammable.

8. Exposure controls and personal protection.

Additional information about design of technical systems:

If relevant, apply technical measures to comply with the occupational exposure limits.

This should be achieved by a good general extraction and – if practically feasible – by the use of a local exhaust ventilation.

Components with critical values that require monitoring at the workplace:

Numerical data – if specified – are taken from the valid national lists (such as TRGS 900 for Germany).

64-17-5 ethanol	
MAK*	960 mg/m ³ , 500 ml/ m ³ , Y; DFG
141-78-6 ethyl acetate	
MAK*	1500 mg/m ³ , 400 ml/ m ³ , Y; DFG

* Maximum workplace concentration MAK

Personal protective equipment:

Breathing equipment:

If the occupational exposure limits can't be met in exceptional cases suitable respiratory protection should be worn only for a short period of time.

Protection of hands:

Chemical protection gloves are suitable, which are tested according to EN 374.

For the short term contact (e.g. splash protection) as well as long time contact (e.g. cleaning activities) with the constituents of inks and usual cleaning agents an LLDPE glove of 0.06 mm thickness is recommended. According to information by the manufacturer the average breakthrough times for usual constituents exceed 480 min.

We recommend you to make a hand protection plan depending on the special activities in your company. Further advices can be found in the documentations of the Federal Association 'Hand Protection' (No. 6 and 9) and the occupational accidents association of Printing and paper-converting (528.1, 528.2, 531.3, 531.5)

SAFETY DATA SHEET

Page 4 of 6

Quicktest approx. 38 mN/m

According to 91 / 155 EEC, art.-no. 40.55100.0

Reviewed on: March 17, 2005

Eye protection:

Use safety eyewear designed to protect against splash of liquids.

Body protection:

The skin should be washed after contact.

Personal should wear antistatic footwear.

Working clothes must not consist of textiles, which show a dangerous melting behaviour in case of fire.

9. Physical and chemical properties

Form:	liquid
Colour:	Red
Smell:	Mild
Change in condition	
Boiling point/Boiling range:	78 ° C
Flash point:	≤ 21 ° C
Ignition temperature:	400,0 ° C
Critical value for explosion:	
Lower value:	3,5 Vol %
Upper value:	15,0 Vol %
Steam pressure at 20 ° C:	67,0 hPa
Density:	not determined
Solubility in / Miscibility with water:	Solvent fully miscible with water

10. Stability and reactivity

Thermal decomposition / conditions to be avoided:

Stable under recommended storage and handling conditions (see section 7).

Materials to be avoided:

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Dangerous products of composition:

Exposition to high temperatures may produce hazardous decompositions: products such as: carbon dioxide, carbon monoxide, smoke and oxides of nitrogen (NO_x).

11. Toxicological information

The preparation is classified according to the conventional method (calculation method of the EC-Directive 1999/45/EEC).

Exposure to component solvent vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects such as: mucous membrane irritation, respiratory system irritation, adverse effects on kidney, liver and central nervous system.

Signs and symptoms: headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in desiccation of the skin. The product may penetrate the body through the skin.

The liquid splashed in the eyes may cause irritation and reversible damage.

12. Ecological information

The product should not be allowed to enter drains or water courses or the soil.
Information about substances harmful to the environment see chapter 2.

Ecotoxicological effects:

Remark: Harmful to fish.

Additional ecological information:

General notes:

Water hazardous class 3: strongly hazardous
Injurious to water organism

SAFETY DATA SHEET

Page 5 of 6

Quicktest approx. 38 mN/m
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13. Disposal considerations

Product:

Recommendation: Do not allow to enter drains.

Waste key number according to European waste products catalogue (recommendation for pure product):

08 03 12	Printing inks waste products which contain hazardous substances
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Uncleaned packagings:

Recommendation:

Emptied containers should be supplied to scrap utilisation resp. recycling.

Not emptied containers and ink residues are hazardous waste.

14. Transport information

Transport only in accordance with ADR for road, RID for rail, IMDG for sea, and ICAO/IATA for air transport.

The test inks are delivered either in brown glass bottles or plastic bottles with a maximum filling volume of 1 l. The test pens are dispatched in PVC tubes with a filling volume of 6 ml.

If these preparations are transported in a suitable packaging, they are not classified as dangerous goods according to GGVS / ADR, if the conditions according to Rn. 2301a ADR resp. section 18 of the general introduction of IMDG are respected.

Land transport ADR / RID and GGVS / GGVE (cross-border/domestic):

ADR / RID-GGVS / E Class: 3 (F1) inflammable fluid materials

Kemler number: 33

UN Number: 1210

Packaging group: II

Hazard label 3

Designation of goods: 1210 PRINTING INK (ETHANOL)
Special regulation 640D

Maritime transport IMDG / GGVSea:

IMDG / GGVSea Class: 3

UN Number: 1210

Label: 3

Packaging group: II

EMS Number: F-E, S-D

Correct technical name: PRINTING INK (ETHANOL (ETHYL ALCOHOL))

Air transport ICAO-TI and IATA-DGR:

ICAO / IATA Class: 3

UN/ID Number: 1210

Label: 3

Packaging group: II

Correct technical name: PRINTING INK (ETHANOL)

15. Regulatory information

Designation according to CEE guidelines:

Code letter and hazard designation of the product:

F Highly inflammable

Risk phrases:

11 Highly flammable

52/53 Injurious to water organism, may have long-term injurious effects in waters

SAFETY DATA SHEET

Page 6 of 6

Quicktest approx. 38 mN/m

According to 91 / 155 EEC, art.-no. 40.55100.0

Reviewed on: March 17, 2005

Safety phrases:

- 7/9 Keep container tightly closed at a well ventilated place
- 16 Keep away from sources of ignition – No smoking
- 29/35 Do not allow to enter sewerage system, waste products and containers have to be eliminated in a safe way.

National regulations:

Classification according to regulation about safety in operation (Betr.SichV): Highly flammable.

Water hazardous class:

3 (self classification according to annex 4 VwVws): strongly hazardous products.

Classification according to Swiss toxic class

VOC according to Swiss VOC-V 88,61%

16. Other information

The information of this safety data sheet is based on the present state of our knowledge and corresponds to the valid EU and national laws.

The users working conditions however are beyond our knowledge and control.

It is always the responsibility of the user to take all necessary steps in order to fulfil the demands laid down in the local rules and legislation.

The information in this safety data sheet is meant as a description of safety requirements of our product; it is not to be considered as a guarantee of the product's properties.

The information in this safety data sheet is required pursuant to § 14 of the regulation concerning hazardous substances of October 31, 2000.

Relevant risk phrases

- 11 Highly flammable
- 22 Injurious to health when swallowed
- 36 Irritating for eyes
- 41 Danger of serious damage to eyes
- 52/53 Toxic for water organism, may have long-term injurious effects in waters
- 66 Repeated contact can cause chapped and brittle skin
- 67 Vapours can cause sleepiness and dizziness