

Safety Data Sheet

in accordance with Regulation (EC) No. 1907/2006 (REACH)



TEST PEN RAPIDTEST 38®

Product no.: 40.66100.0

Revision date: 01/12/2023

Page 1 of 10

Print date: 01/12/2023/ Version 1.5 en

1. Identification of the substance or mixture and of the company

1.1 Product identifier:

Trade name / designation:

TEST PEN RAPIDTEST 38®

UFI-Code : PU18-XQXQ-MC00-8HJY

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

1.2.1 Uses of the substance or mixture:

Determining the surface tension and the degree of cleanliness of the surfaces of solid bodies, such as plastic films and moulded parts from these materials.

1.2.2 Uses advised against: Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

1.3 Details of the supplier of the safety data sheet

Company name	arcotest GmbH
Address	Rotweg 25 71297 Mönsheim, Germany
Phone	+49 7044 9022 70
Fax	+49 7044 9022 69
Contact for information	Mrs Anca Muresan
E-mail	info@arcotest.info
Website	www.arcotest.info
1.4 EMERGENCY TELEPHONE NUMBER:	+49 170 5351 781 (24h in German and English)

2. Possible Dangers

2.1 Classification of the mixture:

Regulation (EC) No. 1272/2008

Hazard categories:

Flammable liquids: Flam. Fl., category 2 H225

Eye irritation: eye Irrit. 1, category 2 H319

Additional information:

Full text of H and EUH phrases: see under section 16.

2.2 Labelling elements

Labelling in accordance with Regulation (EG) No. 1272/2008 [CLP]

Hazard pictograms:



Signal word:

Danger

Hazard-determining components of labeling:

Ethanol

Hazard statements:

H225 Highly flammable liquid and vapour.

H319 Causes severe eye irritation.

Precautionary statements:

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

P273 Avoid release to the environment.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P233 Keep containers tightly closed

P370+P378 In case of fire: use water spray, alcohol-resistant foam, carbon dioxide (CO₂); extinguishing powder to extinguish it.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

Only intended for commercial users.

2.3 Other hazards:

Results of PBT and vPvB assessment: SECTION 12: Ecological Information

Note: Please note that the information contained in our Safety Data Sheets refers to the ink.

Since our pens contain a comparatively small quantity of ink, most of this information will not be relevant.

3. Composition / Information on Ingredients

3.2 Mixtures

Hazardous ingredients

Preparation of solvents and colouring components.

Designation				
CAS No.	EC No.	REACH No.	Index No.	%
Classification in accordance with Regulation (EG) No. 1272 [CLP]				MG in g/mol
Ethanol				
64-17-5	200-578-6	01-2119457610-43		80 - <96 %
Flam. liq. 2, eye irrit. 2; H225 H319				

Additional information:

Full text of H and EUH phrases: see under section 16.

Specific concentration limits, M-factors and ATE

Designation				
CASNo	EC No	REACH No	Index-No	Anteil in %
Spezifische Konzentrationsgrenzen, M-Faktoren und ATE				MG in g/mol
Ethanol, Ethylalkohol				
64-17-5	200-578-6	01-2119457610-43		85 - < 90 %
inhalative: LC50 = 51 mg/l (Vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 10470 mg/kg; Eye Irrit. 2; H319: >= 50 - 100				

4. First Aid Measures

4.1 Description of first aid measures

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation:

Remove affected person from the immediate area. Ensure supply of fresh air.

After skin contact:

Wash off immediately with soap and water

If skin irritation occurs: get medical advice/attention.

After eye contact:

In case of contact with eyes, rinse immediately for 10 to 15 minutes with running water with the eyelids open and consult an ophthalmologist

After ingestion:

Rinse mouth immediately and drink large quantities of water.

Do NOT induce vomiting. Call a doctor if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention or special treatment needed

No data available

5. Fire-fighting Measures

5.1 Extinguishing agents:

Water spray, carbon dioxide (CO₂), alcohol-resistant foam, extinguishing powder.

Unsuitable: full water jet

5.2 Specific hazards arising from the substance or mixture

Flammable. Vapours may form an explosive mixture with air. Vapours are heavier than air and spread over the floor.

In case of fire: Hazardous decomposition products: Carbon dioxide (CO₂). Carbon monoxide. Gases, vapours, harmful

5.3 Advice for fire-fighters

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

Adapt extinguishing measures to suit the environment.

Additional information:

Use water spray to protect people and to cool containers in the danger zone.

Damp down gases/vapours/mist with a water spray jet.

Collect contaminated extinguishing water separately. Do not empty into drains or watercourses.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Eliminate all ignition sources.

Bring people to safety.

Ensure adequate ventilation.

Do not breathe gas/fumes/vapour/spray.

Avoid contact with skin, eyes and clothing.

Wear personal protective equipment.

6.2 Environmental precautions:

Do not empty into drains or watercourses.

Do not allow to enter the ground/soil.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid binders, universal binders). Treat the recovered material as prescribed in the "Disposal" section.

6.4 Reference to other sections

Safe handling: see section 7. Personal protective equipment: see section 8. Disposal: see section 13

7. Handling and Storage

7.1 Precautions for safe handling

Advice on safe handling:

Provide good ventilation of working area (local exhaust ventilation, if necessary).

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately. Do not inhale vapours. Clean skin thoroughly after work; apply skin cream

Precautions against fire and explosion

Vapours may form an explosive mixture with air.

Ignitable mixtures may form in empty containers.

Keep away from heat and ignition sources.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight

Requirements for storage rooms and vessels

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Always keep in containers of same material as the original one.

Information on storage with other products

Do not store together with substances of the storage classes: 1, 2A, 4.1A, 4.1B, 4.2, 4.3, 5.1A, 5.1C, 5.2, 6.1B and 6.2 and restrictions on mixed storage with substances of the storage classes: 2B, 5.1B, 7, 8A and 11 observe (VCI-concept).

Observe regulations for storage of flammable liquids.

Further information on storage conditions

Keep only in the original container in a cool, well-ventilated place.

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

Storage class in accordance with TRGS 510: 3 (Flammable liquids) (for inks)

7.3 Specific end uses:

No data available

8. Exposure Limitation and Control / Personal Protective Equipment

8.1 Control parameters

The product was not tested.

Workplace limit values (TRGS 900)

CAS No.	Designation	ppm	mg/m ³	F/m ³	Peak limit	Art
64-17-5	Ethanol	200	380		2(II)	

DNEL/DMEL values

CAS No.	Designation	Exposure route	Effect	Value
64-17-5	Ethanol			
	Workers DNEL, acute	Inhalation	Local	1900 mg/m ³
	Workers DNEL, long-term	Dermal	Systemic	343 mg/kg KG/d
	Workers DNEL, long-term	Inhalation	Systemic	950 mg/m ³
	Consumers DNEL, acute	Inhalation	Local	950 mg/m ³
	Consumers DNEL, long-term	Dermal	Systemic	206 mg/kg KG/d
	Consumers DNEL, long-term	Inhalation	Systemic	114 mg/m ³
	Consumers DNEL, long-term	Oral	Systemic	87 mg/kg KG/d

PNEC values

CAS No.	Designation	Value
	Environmental compartment	
64-17-5	Ethanol	
	Fresh water	0.96 mg/l
	Sea water	0.79 mg/l
	Fresh water sediment	3.6 mg/kg
	Marine sediment	2.9 mg/kg
	Soil	0.63 mg/kg
	Micro-organisms in waste water treatment plants	580 mg/l

Additional information on limit values

Ethanol:

TRGS 900, AGW (Germany): DFG Y: There is no need to be concerned about the risk of foetal damage when complying with the workplace limit values (AGW) and the biological limit values (BGW).

8.2 Exposure limitation and control
8.2.1 Appropriate engineering controls:

Adequate technical ventilation must be provided for the whole working area if local extraction is not possible or is inadequate.

8.2.2 Personal protective equipment:
Protective and hygiene measures

Do not breathe gas/vapour/spray.

Change contaminated clothing.

Wash hands before breaks and at the end of the working day.

When using do not eat or drink.

Cloths contaminated with product should not be kept in trouser pockets.

Replace gloves immediately if you notice any cracks or other changes in size, colour, elasticity etc.! Prepare a skin protection plan.

Eye protection:

Safety glasses with side protection shield (EN 166)

Eye baths must be provided and their location must be clearly marked.

Hand protection:

Only chemical protective gloves with a CE mark and four-digit test number must be worn when handling chemical agents. (See DIN EN 374).

Prepare and observe a skin protection plan!

Chemical gloves need to be selected specifically for the workplace based on the concentration and volume of hazardous substances.

It is recommended to check the chemical resistance of the above-mentioned protective gloves for special applications with the glove manufacturer.

Protective gloves should be replaced immediately in case of damage or wear

Glove material:

Butyl rubber 0.5 mm Penetration time: ≥ 8 h

Fluorocarbon rubber (FKM) 0.4 mm Penetration time ≥ 480 min

Polychloroprene (CR)

Information on the penetration time of the substances listed in Chapter 3 of this Safety Data Sheet can be obtained from the glove manufacturer.

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Required when vapours and aerosols are generated. Required when vapours and aerosols are generated.

Recommended respiratory protection: combined filter device (EN 14387) type A-P2.

8.2.3 Environmental exposure limitation and control

Water (76/464/EWG): not listed
 Air (1999/30/EWG): not listed
 Do not empty into drains or watercourses.
 Avoid seepage into the ground.
 Avoid contamination of groundwater by material.
 Physical and Chemical Properties

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical form: liquid
 Colour: green
 Odour: alcoholic

Status changes

Initial boiling point and boiling range: 78 °C estimated
 Flash point: 12 °C estimated

Explosion hazards

Vapours may form an explosive mixture with air. Vapours are heavier than air and spread over the floor.

Lower explosion limit: 3.5 % vol. estimated
 Upper explosion limit: 15 % vol. estimated
 Ignition temperature: 425 °C estimated
 Density: not specified
 Partition coefficient: not specified
 Solids content: not specified
 Particle characteristics: not relevant (liquid)

9.2 Other information

9.2.1 Information on physical hazard classes:

No additional information is available.

9.2.2 Other safety characteristics

No information available

10. Stability and Reactivity

10.1 Reactivity:

No data available.

10.2 Chemical stability:

The mixture is chemically stable under the recommended storage, operating and temperature conditions.

10.3 Possibility of hazardous reactions:

No data available

10.4 Conditions to avoid:

Keep away from heat, hot surfaces, open flames as well as other ignition sources

10.5 Incompatible materials:

Oxidising agents, alkalis (lyes), concentrated. Acid, concentrated.

10.6 Hazardous decomposition products:

The following may be produced in case of fire: Carbon dioxide (CO₂). Carbon monoxide. Nitrogen oxide (NO_x). Formaldehyde. Gases/vapours that are harmful to health.

11. Toxicological Information

11.1 Information on toxicological effects (ink)

11.1.1 Substances

Acute toxicity: The product was not tested.

CAS No.	Designation				
	Exposure routes	Method	Dose	Species	Source
64-17-5	Ethanol				
	Oral	LD50	>10000 mg/kg	Rat	OECD 401
	Dermal	LD50	>2000 mg/kg	Rabbit	OECD 402
	Inhalation (4 h) vapour	LC50	>51 mg/l	Rat	

Ethanol

Ingestion:

may cause headaches, exhaustion, drowsiness, poor coordination and unconsciousness.

Inhale:

If the substance is inhaled at concentrations above the limit in the breath, headaches, drowsiness, dizziness, nausea, coordination disorder and unconsciousness may occur.

Irritant and corrosive effect

Causes serious eye irritation.

Ethanol:

Irritant effect on the skin: causes no irritation.

Irritant effect on the eye: irritating to eyes.

Sensitising effects

CMR effects (carcinogenic, mutagenic and toxic to reproduction)

Ethanol

The classification criteria are not met based on the data available.

Carcinogenicity: none

Germ cell mutagenicity: none

Reproductive toxicity: none

Repeated dose toxicity

ethanol

rat, oral, exposure time: 90 days, NOAEL: 1730 mg/kg, LOAEL: 3160 mg/kg

Specific target organ toxicity (single exposure)

Ethanol

The classification criteria are not met based on the data available.

None/none

Specific target organ toxicity (repeated exposure)

Ethanol The classification criteria are not met based on the data available.

None/none

Risk of aspiration

Ethanol The classification criteria are not met based on the data available.

None/none

Further information:

Inhalation of vapours (ink) may cause narcotic symptoms. When observed on animals and due to its physical properties, ethanol may enter the lungs when swallowed or vomited.

Systemic effects: After absorption of large quantities: Fatigue, CNS disorders, headaches, dizziness, unconsciousness, nausea, vomiting.

Repeated and prolonged skin contact may cause degreasing and irritation.

Further dangerous properties cannot be excluded.

The usual precautions for handling chemicals must be followed.

11.2 Endocrine disrupting properties

Not listed.

11.3 Information on other hazards

There is no additional information.

12. Ecological Information

12.1 Ecotoxicity:

The product was not tested.

Ethanol (cf. ethyl alcohol):

Acute toxicity has been evaluated in a variety of species under standard operating conditions.

The criteria for classification as "acute aquatic toxic" are not met.

CAS No.	Designation					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
64-17-5	Ethanol					
	Acute fish toxicity	LC50	15300 mg/l	96 h	Pimephales promelas (Fathead minnow)	Flow test US-EPA
	Acute crustacean toxicity	EC50	>10000 mg/l	48 h	Daphnia magna (water flea)	
	Acute algal toxicity	ErC50	275 mg/l	72 h	Chlorella vulgaris	OECD 201

12.2 Persistence and degradability

The product was not tested.

Ethanol:

Degree of elimination: > 70 %

Other information:

CSB: 1600 g O2/kg

BSB5: 1350 gO2/g

CAS No.	Designation			
	Method	Value	d	Source
	Assessment			
64-17-5	Ethanol			
	Biodegradability	97%	28	
	Readily biodegradable.			

12.3 Bioaccumulation potential:

The product was not tested.

Ethanol:

Bioaccumulation potential: none

Partition coefficient in n-Octanol/water

CAS No.	Designation	Log Pow	BCF
64-17-5	Ethanol	-0.3	0.66

12.4 Mobility in soil

The product was not tested.

Ethanol:

The product is mobile in an aqueous environment.

12.5 Results of PBT and vPvB assessment

The product was not tested.

Ethanol:

This substance does not meet the criteria for classification as PBT or vPvB.

12.6 Other harmful effects:

The product was not tested.

Additional ecotoxicological information:

Do not discharge product unmonitored into the environment.

12.7 Endocrine disrupting properties

Not listed.

12.8 Other adverse effects

Data are not available.

13. Disposal Considerations

13.1 Waste management process

This product and its container must be disposed of as hazardous waste. Disposal of contents and containers in accordance with local/regional/international regulations.

Information relevant for waste water disposal

Do not allow to enter sewerage system.

13.2 Relevant waste legislation

The assignment of the waste code numbers /waste designations shall be carried out in accordance with EAKV in a sector- and process-specific manner.

13.3 Notes

Waste shall be separated in such a way that it can be treated separately by municipal or national waste facilities. Please observe the relevant national or regional regulations.

13.4 Further information

Ink that is no longer usable can be returned for disposal.

14. Transport Information

14.1 UN number or ID number

ADR/RID/ADN	UN 3175
IMDG-Code	UN 3175
ICAO-TI	UN 3175

14.2 UN proper shipping name

ADR/RID/ADN	Solids containing flammable liquid, n.o.s. or mixtures of solid substances (such as preparations and wastes)
IMDG-Code	Solids containing flammable liquid, n.o.s. or mixtures of solid substances (such as preparations and wastes)
ICAO-TI	Solids containing flammable liquid, n.o.s. or mixtures of solid substances (such as preparations and wastes)

14.3 Transport hazard class(es)

ADR/RID/ADN	4.1
IMDG-Code	4.1
ICAO-TI	4.1

14.4 Packing group

ADR/RID/ADN	II
IMDG-Code	II
ICAO-TI	II

14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk

14.8 Special precautions for users

Not classified as a hazardous material according to the ADR/RID, IATA transport regulations

Overland transport (ADR/RID)

UN number	UN 3175
Proper UN Shipping Ref.	Solids containing flammable liquid, n.o.s. or mixtures of solid substances (such as preparations and wastes)
Special regulations	216

Air transport (IATA/)

UN number:	UN 3175
Proper UN Shipping Ref.	Solids containing flammable liquid, n.o.s. or mixtures of solid substances (such as preparations and wastes)
Special regulations:	A46
Classification:	"not restricted"

Special precautions for users

Caution: Flammable liquid substance

The transport regulations are cited in accordance with the international regulations and in the form in which they are applied in Germany. Possible deviations in other countries are not taken into considerations.

14.9 Transport in bulk according to Annex II of the MARPOL 73/78 Convention and the IBC Code

Not applicable

15. Regulatory Information

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

15.1.1 EU regulations

Relevant European Union (EU) regulations

Regulation 649/2012/EU on the export and import of dangerous chemicals (PIC).

Not listed.

Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS).

Not listed.

Regulation 850/2004/EC on Persistent Organic Pollutants (POP)

Not listed.

Restrictions according to REACH, Annex VIII

None

List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

not listed

Directive on industrial emissions (VOCs, 2010/75/EU) Deco-Paint Directive (2004/42/EC)

VOC content: 100 %

Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) - Annex II

Not listed

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Pollutant Release and Transfer Register (PRTR)

not listed

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)

Not listed.

Regulation 98/2013/EU on the marketing and use of explosives precursors

Not listed

Regulation 111/2005/EC laying down rules for the monitoring of trade between the Community and third countries in drug precursors

Not listed

15.1.2. Substance is listed in the following national inventories:

Country	National Directories	Substance status
AU	AICS	Ethanol is listed
CA	DSL	Ethanol is listed
CN	IECSC	Ethanol is listed
EU	ECSI	Ethanol is listed
EU	EINECS/ELINCS/NLP	Ethanol is listed
JP	CSCL-ENCS	Ethanol is listed
KR	KECI	Ethanol is listed
MX	INSQ	Ethanol is listed
NZ	NSQ	Ethanol is listed
PH	PICCS	Ethanol is listed
TR	CICR	Ethanol is listed
TW	TCSI	Ethanol is listed
US	TSCA	Ethanol is listed

Legende

AICS Australian Inventory of Chemical Substances

CICR Chemical Inventory and Control Regulation

CSCL-ENCS List of Existing and New Chemical Substances (CSCL-ENCS)

DSL Domestic Substances List (DSL)

ECSI EG-Stoffverzeichnis (EINECS, ELINCS, NLP)

IECSC Inventory of Existing Chemical Substances Produced or Imported in China

INSQ National Inventory of Chemical Substances

KECI Korea Existing Chemicals Inventory

NZIoC New Zealand Inventory of Chemicals

PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS)

REACH Reg. REACH registrierte Stoffe

TCSI Taiwan Chemical Substance Inventory

TSCA Toxic Substance Control Act

15.1.2 National regulations (Germany)

Water hazard class: 2 - hazardous to water

15.2 Chemical safety assessment:

A chemical safety assessment was carried out for the following substances in this mixture: Ethanol

16. Other Information

16.1 Changes made (revised safety data sheet)

Notice of changes: Section 1 Section 2 Section 3 Section 9 Section 16

16.2 Abbreviations and acronyms

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

IMDG Code International Maritime Code for Dangerous Goods

IATA-DGR International Air Transport Association – Dangerous Goods Regulations

GHS Globally Harmonised System of Classification and Labelling of Chemicals

OECD Organisation for Economic Co-operation and Development

EINECS European Inventory of Existing Commercial Chemical Substances in the European Union
Inventory of Existing Chemical Substances (waste materials)

ELINCS European List of Notified Chemical Substances (in German: Europäisches Verzeichnis der auf dem Markt vorhandenen chemischen Stoffe)

CAS Chemical Abstracts Service

LC Lethal Concentration

LL	Lethal Load
LD	Lethal Dose
EC	Effective Concentration
EL	Effective Load
ATE	Acute Toxicity Estimate
DNEL	Derived No-effect Level
PNEC	Predicted No-effect Concentration
PBT	Persistent, Bioaccumulative, Toxic
vPvB	very Persistent and very Bioaccumulative
NOAEL	Highest dose at which there was not an observed toxic or adverse effect.
LOAEL	Lowest dose at which there was an observed toxic or adverse effect.
DFG	Senate Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area of the DFG (MAK Commission) [=German Research Foundation]

16.3 Most important literature references and data sources

The data for the ingredients was taken from the most recent version of the pre-supplier's safety data sheet. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

16.4 Classification of mixtures and evaluation methods used in accordance with Regulation (EC) No. 1272/2008 [CLP]

See section 2.1 (classification).

16.5 Wording of H and EUH phrases (number and full text):

H225 Highly flammable liquid and vapour.

H319 Causes severe eye irritation.

16.6 Training advice:

Provide appropriate information, instructions and training for users.

16.7 Other information:

The information contained in this safety data sheet reflects the latest findings, to the best of our knowledge, at the time of printing. 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. If the the product is mixed, blended or processed with other materials or undergoes processing, the information in this safety data sheet may not be valid for the new material produced in this way, unless expressly stated otherwise.

We draw the user's attention to the fact that risks may arise in the event of use for purposes other than those for which it is intended.

The user of our product is solely responsible for compliance with regulations and laws.

Information:

Phone	+49 7044 9022 70
Fax	+49 7044 9022 69
E-mail	info@arcotest.info

The information contained herein is based on our present knowledge and characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product described. Changes or duplications require the express permission of arcotest GmbH.