



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 25.07.2013

Version 5.0

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

1.1 Product identifier

Catalogue No. 108641
Product name Water detection paste N
REACH Registration Number This product is a mixture. REACH Registration Number see section 3.

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

Identified uses Reagent for analysis
For additional information on uses please refer to the Merck Chemicals portal (www.merck-chemicals.com).

1.3 Details of the supplier of the safety data sheet

Company Merck KGaA * 64271 Darmstadt * Germany * Phone:+49 6151 72-0
Responsible Department EQ-RS * e-mail: prodsafe@merckgroup.com

1.4 Emergency telephone number Please contact the regional company representation in your country.

SECTION 2. Hazards identification

2.1 Classification of the substance or mixture

This mixture is not classified as dangerous according to European Union legislation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3 Other hazards

None known.

SECTION 3. Composition/information on ingredients

Chemical nature Mixture contains:
alkaline support, colour indicator

3.1 Substance

not applicable

3.2 Mixture

Hazardous components (REGULATION (EC) No 1272/2008)

Chemical Name (Concentration)

CAS-No.	Registration number	Classification
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sodium carbonate ($\geq 3\%$ - $< 10\%$)

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

497-19-8	01-2119485498-19-	Eye irritation, Category 2, H319
	XXXX	

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phenolphthalein ($\geq 0,3\%$ - $< 1\%$)
77-09-8 01-2119498295-24-XXXX Carcinogenicity, Category 1B, H350
Germ cell mutagenicity, Category 2, H341
Reproductive toxicity, Category 2, H361f

For the full text of the H-Statements mentioned in this Section, see Section 16.

Hazardous components (1999/45/EC)

Chemical Name (Concentration)

CAS-No. Classification
sodium carbonate ($\geq 1\%$ - $< 10\%$)
497-19-8 Xi, Irritant; R36

phenolphthalein ($\geq 0,1\%$ - $< 1\%$)
77-09-8 Carc.Cat.2; R45
Mut.Cat.3; R68
Repr.Cat.3; R62

For the full text of the R-phrases mentioned in this Section, see Section 16.

SECTION 4. First aid measures

4.1 Description of first aid measures

After inhalation: fresh air.

After skin contact: wash off with plenty of water. Remove contaminated clothing.

After eye contact: rinse out with plenty of water.

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed

We have no description of any toxic symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water, Carbon dioxide (CO₂), Foam, Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Special protective equipment for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

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SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

6.2 Environmental precautions

Do not empty into drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up with suitable equipment. Dispose of properly. Clean up affected area.

6.4 Reference to other sections

Indications about waste treatment see section 13.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Observe label precautions.

Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry.

Storage temperature: no restrictions.

7.3 Specific end use(s)

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

SECTION 8. Exposure controls/personal protection

8.1 Control parameters

Derived No Effect Level (DNEL)

sodium carbonate (497-19-8)

Worker DNEL, longterm	Local effects	inhalation	10 mg/m ³
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Predicted No Effect Concentration (PNEC)

sodium carbonate (497-19-8)

PNEC no data available

8.2 Exposure controls

Engineering measures

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Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye/face protection

Safety glasses

Hand protection

full contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet(>,<) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Respiratory protection

required when dusts/vapours/aerosols are generated.

Environmental exposure controls

Do not empty into drains.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	paste
Colour	dark grey
Odour	characteristic
Odour Threshold	No information available.
pH	ca. 11 suspension
Melting point	No information available.

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Boiling point	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.
Relative vapour density	No information available.
Relative density	ca. 1,6 g/cm ³ at 20 °C
Water solubility	No information available.
Partition coefficient: n-octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none

9.2 Other data

none

SECTION 10. Stability and reactivity

10.1 Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

no information available

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10.6 Hazardous decomposition products
no information available

SECTION 11. Toxicological information

11.1 Information on toxicological effects

Mixture

Acute oral toxicity

This information is not available.

Acute inhalation toxicity

This information is not available.

Acute dermal toxicity

This information is not available.

Skin irritation

This information is not available.

Eye irritation

This information is not available.

Sensitisation

This information is not available.

Germ cell mutagenicity

This information is not available.

Carcinogenicity

This information is not available.

Reproductive toxicity

This information is not available.

Teratogenicity

This information is not available.

Specific target organ toxicity - single exposure

This information is not available.

Specific target organ toxicity - repeated exposure

This information is not available.

Aspiration hazard

This information is not available.

11.2 Further information

Hazardous properties cannot be excluded, but are relatively improbable due to the low concentration of the dissolved substance(s).

Handle in accordance with good industrial hygiene and safety practice.

Components

sodium carbonate

Acute oral toxicity

LD50 rat: 4.090 mg/kg (IUCLID)

LDLO human: 714 mg/kg (RTECS)

Acute inhalation toxicity

LC50 rat: 5.750 mg/l; 2 h

OECD Test Guideline 403

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Skin irritation

rabbit
Result: slight irritation
OECD Test Guideline 404

Eye irritation

rabbit
Result: Eye irritation
(IUCLID)

Germ cell mutagenicity

Genotoxicity in vitro

Ames test
Escherichia coli
Result: negative
(Lit.)

Ames test

Result: negative
(Lit.)

phenolphthalein

Skin irritation

Result: irritating
OECD Test Guideline 431

Eye irritation

Result: non-corrosive
OECD Test Guideline 437

Sensitisation

Sensitisation test: mouse
Result: negative
Method: OECD Test Guideline 429

Germ cell mutagenicity

Genotoxicity in vivo

Mutagenicity (mammal cell test): micronucleus.
mouse
Result: positive
(Lit.)

Genotoxicity in vitro

Ames test
Salmonella typhimurium
Result: negative
(Lit.)

Mutagenicity (mammal cell test): chromosome aberration.

Result: positive
(Lit.)

SECTION 12. Ecological information

Mixture

12.1 Toxicity

No information available.

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

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12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects

Discharge into the environment must be avoided.

Components

sodium carbonate

Toxicity to fish

LC50 *Lepomis macrochirus* (Bluegill sunfish): 300 mg/l; 96 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates

EC50 *Daphnia magna* (Water flea): 265 mg/l; 48 h (IUCLID)

Biodegradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

phenolphthalein

Toxicity to daphnia and other aquatic invertebrates

EC50 *Daphnia magna* (Water flea): > 4,34 mg/l; 48 h

OECD Test Guideline 202

Toxicity to algae

Growth inhibition EbC50 *Desmodesmus subspicatus* (green algae): 2,5 mg/l; 72 h

OECD Test Guideline 201

Growth inhibition ErC50 *Desmodesmus subspicatus* (green algae): > 3,33 mg/l; 72 h

OECD Test Guideline 201

Growth inhibition NOEC *Desmodesmus subspicatus* (green algae): 0,57 mg/l; 72 h

OECD Test Guideline 201

Biodegradability

76 %; 28 d; aerobic

OECD Test Guideline 301F

The 10 day time window criterion is not fulfilled.

Readily biodegradable.

SECTION 13. Disposal considerations

Waste treatment methods

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14. Transport information

Land transport (ADR/RID)

14.1 - 14.6

Not classified as dangerous in the meaning of transport regulations.

Inland waterway transport (ADN)

Not relevant

Air transport (IATA)

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14.1 - 14.6 Not classified as dangerous in the meaning of transport regulations.

Sea transport (IMDG)

14.1 - 14.6 Not classified as dangerous in the meaning of transport regulations.

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

Not relevant

SECTION 15. Regulatory information

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

EU regulations

Major Accident Hazard 96/82/EC
Legislation Directive 96/82/EC does not apply

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Regulation (EC) No 689/2008 concerning the export and import of dangerous chemicals not regulated

Substances of very high concern (SVHC) This product does contain substances of very high concern above the respective regulatory limit (> 0.1 % (w/w), Regulation (EC) No 1907/2006 (REACH), Article 57).
Contains: phenolphthalein

National legislation

Storage class 10 - 13

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16. Other information

Full text of H-Statements referred to under sections 2 and 3.

H319 Causes serious eye irritation.
H341 Suspected of causing genetic defects.
H350 May cause cancer.
H361f Suspected of damaging fertility.

Full text of R-phrases referred to under sections 2 and 3

R36 Irritating to eyes.
R45 May cause cancer.
R62 Possible risk of impaired fertility.
R68 Possible risk of irreversible effects.

Training advice

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Provide adequate information, instruction and training for operators.

Labelling (67/548/EEC or 1999/45/EC)

The product does not need to be labelled in accordance with EC directives or respective national laws.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Regional representation

This information is given on the authorised Safety Data Sheet for your country.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.