



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

- **1.1 Product identifier**
- **Trade name: Duroval Säurekapazität K S 4,3 Indikator**
- **UFI: SPTQ-G4R5-6002-9SK6**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation:**  
Reagent for analysis  
EuPCS: PC-TEC-19 Reagents and laboratory chemical
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Gebrüder Heyl  
Analystechnik GmbH & Co. KG  
Orleansstraße 75 b  
D-31135 Hildesheim  
Phone +49 (0) 5121 2893390  
Fax +49 (0) 5121 2893367  
E-mail [info@heylanalysis.de](mailto:info@heylanalysis.de)  
Internet [www.heylanalysis.de](http://www.heylanalysis.de)
- **Further information obtainable from:** product safety department
- **1.4 Emergency telephone number:**  
Giftinformationszentrum Nord  
Phone +49 (0) 551 19240

## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The product is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Labelling of packages where the contents do not exceed 125 ml**
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:**  
Mixture of substances listed below with nonhazardous additions according to Regulation (EC) No 1272/2008.  
Propane-1,2-diol CAS 57-55-6
- **Dangerous components:** Void
- **SVHC** Not applicable.
- **Additional information:** For the wording of the listed hazard phrases refer to section 16.



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#### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
A person vomiting while laying on their back should be turned onto their side.  
Rinse out mouth and then drink plenty of water.  
Seek medical treatment.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

#### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**  
Can form explosive gas-air mixtures.  
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

#### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear personal protection equipment.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of the material collected according to regulations.  
Clean the affected area carefully; suitable cleaners are:  
Warm water
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

#### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Prevent formation of aerosols.  
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**  
Fumes can combine with air to form an explosive mixture.  
Keep ignition sources away - Do not smoke.

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**Safety data sheet  
according to 1907/2006/EC**

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
  - Keep container tightly sealed.
  - Protect from heat and direct sunlight.
  - Store receptacle in a well ventilated area.
- **Recommended storage temperature:** 15 - 25 °C
- **Storage class:**
  - Storage class 10: Combustible liquids that cannot be assigned to any other storage classes (TRGS 510)
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

### · 8.1 Control parameters

- **Ingredients with limit values that require monitoring at the workplace:**

**CAS: 57-55-6 Propylene glycol**

MAK (Germany) als Dampf und Aerosol; vgl. Abschn. IIb und Xc

- **Regulatory information** MAK (Germany): MAK- und BAT-Liste
- **Additional information:** The lists valid during the making were used as basis.

### · 8.2 Exposure controls

- **Appropriate engineering controls** No further data; see item 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
  - The usual precautionary measures are to be adhered to when handling chemicals.
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing
  - Wash hands before breaks and at the end of work.
  - Do not eat, drink, smoke or sniff while working.
- **Respiratory protection:**
  - Use suitable respiratory protective device when aerosol or mist is formed. Filter: Type A
- **Hand protection**
  - Wear gloves according to EN 374.
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  - Check protective gloves prior to each use for their proper condition.
  - Preventive skin protection by use of skin-protecting agents is recommended.
  - After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves**
  - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
  - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact gloves made of the following materials are suitable:**
  - Nitrile rubber, NBR
  - Recommended thickness of the material:  $\geq 0.12$  mm
  - Value for the permeation: Level = 6 ( $> 480$  min)
- **As protection from splashes gloves made of the following materials are suitable:**
  - Nitrile rubber, NBR
  - Recommended thickness of the material:  $\geq 0.12$  mm

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Value for the permeation: Level = 6 (> 480 min)

- **Eye/face protection** Goggles according to EN 166 recommended during refilling
- **Body protection:** Protective work clothing

## SECTION 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · General Information

- |   |                              |
|---|------------------------------|
| · <b>Physical state</b>   | Fluid                        |
| · <b>Colour:</b>  | Dark blue                    |
| · <b>Odour:</b>   | Odourless                    |
| · <b>Odour threshold:</b>   | Not determined.              |
| · <b>Melting point/freezing point:</b>                            | Undetermined.                |
| · <b>Boiling point or initial boiling point and boiling range</b> | Undetermined.                |
| · <b>Flammability</b>   | Not applicable.              |
| · <b>Lower and upper explosion limit</b>                          |                              |
| · <b>Lower:</b>   | 2.6 Vol %                    |
| · <b>Upper:</b>   | 12.6 Vol %                   |
| · <b>Flash point:</b>   | Undetermined.                |
| · <b>Auto-ignition temperature:</b>                               | Product is not selfigniting. |
| · <b>Decomposition temperature:</b>                               | Not determined.              |
| · <b>pH (3 g/l) at 20 °C</b>                                      | neutral                      |
| · <b>Viscosity:</b>   |                              |
| · <b>Kinematic viscosity</b>                                      | Not determined.              |
| · <b>Dynamic:</b>   | Not determined.              |
| · <b>Solubility</b>   |                              |
| · <b>water:</b>   | Fully miscible.              |
| · <b>Partition coefficient n-octanol/water (log value)</b>        | Not determined.              |
| · <b>Vapour pressure:</b>   | Not determined.              |
| · <b>Density and/or relative density</b>                          |                              |
| · <b>Density at 20 °C:</b>  | 1.03 g/cm <sup>3</sup>       |
| · <b>Relative density</b>   | Not determined.              |
| · <b>Vapour density</b>   | Not determined.              |

### · 9.2 Other information

#### · Important information on protection of health and environment, and on safety.

- |                                |   |
|--------------------------------|---|
| · <b>Ignition temperature:</b> | Not determined.   |
| · <b>Explosive properties:</b> | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| · <b>Change in condition</b>   |   |
| · <b>Evaporation rate</b>      | Not determined.   |

#### · Information with regard to physical hazard classes

- |  |      |
|--|------|
| · <b>Explosives</b>                            | Void |
| · <b>Flammable gases</b>                       | Void |
| · <b>Aerosols</b>                              | Void |
| · <b>Oxidising gases</b>                       | Void |
| · <b>Gases under pressure</b>                  | Void |
| · <b>Flammable liquids</b>                     | Void |
| · <b>Flammable solids</b>                      | Void |
| · <b>Self-reactive substances and mixtures</b> | Void |
| · <b>Pyrophoric liquids</b>                    | Void |
| · <b>Pyrophoric solids</b>                     | Void |

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- |  |      |
|--|------|
| · <b>Self-heating substances and mixtures</b>                                      | Void |
| · <b>Substances and mixtures, which emit flammable gases in contact with water</b> | Void |
| · <b>Oxidising liquids</b>   | Void |
| · <b>Oxidising solids</b>  | Void |
| · <b>Organic peroxides</b>   | Void |
| · <b>Corrosive to metals</b>   | Void |
| · <b>Desensitised explosives</b>   | Void |

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
 To avoid thermal decomposition do not overheat.
- **10.3 Possibility of hazardous reactions**  
 Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.  
 Reacts with oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** Flammable gases/vapours

**SECTION 11: Toxicological information**

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

**SECTION 12: Ecological information**

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
 The product does not contain substances with endocrine disrupting properties.

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- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**  
 Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation** Disposal must be made according to official regulations.
- **Uncleaned packaging:**
- **Recommendation:**  
 Packagings that may not be cleansed are to be disposed of in the same manner as the product.  
 Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**SECTION 14: Transport information**

· <b>14.1 UN number or ID number</b> · <b>ADR, ADN, IMDG, IATA</b>	Void
· <b>14.2 UN proper shipping name</b> · <b>ADR, ADN, IMDG, IATA</b>	Void
· <b>14.3 Transport hazard class(es)</b> · <b>ADR, ADN, IMDG, IATA</b> · <b>Class</b>	Void
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	Void
· <b>14.5 Environmental hazards:</b> · <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>Transport/Additional information:</b>	Not dangerous according to the above specifications.
· <b>UN "Model Regulation":</b>	Void

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**  
 None of the ingredients is listed.

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· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **National regulations:**

· **Technical instructions (air):**

Class	Share in %
NK	99.3

· **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing SDS:** product safety department.

· **Date of previous version:** 22.08.2019

· **Version number of previous version:** 8

· **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)*

*ICAO: International Civil Aviation Organisation*

*ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)*

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*GHS: Globally Harmonised System of Classification and Labelling of Chemicals*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

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

*PBT: Persistent, Bioaccumulative and Toxic*

*SVHC: Substances of Very High Concern*

*vPvB: very Persistent and very Bioaccumulative*

· **\* Data compared to the previous version altered.**