Roti®-Pol Mix TaqHY 2x conc., ready-to-use
article number: 1K33
Version: 2.0 en
Replaces version of: 2021-07-27
Version: (1)

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

### 1.1 Product identifier

Identification of the substance
Article number

Roti®-Pol Mix TaqHY 2x conc., ready-to-use 1K33
1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses:
Laboratory chemical Laboratory and analytical use

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

Carl Roth GmbH + Co KG
Schoemperlenstr. 3-5
D-76185 Karlsruhe
Germany
Telephone:+49 (0) 721-56 060
Telefax: +49 (0) 721-56 06149
e-mail: sicherheit@carlroth.de
Website: www.carlroth.de
Competent person responsible for the safety data :Department Health, Safety and Environment sheet:
e-mail (competent person): sicherheit@carlroth.de
1.4 Emergency telephone number

| Name | Street | Postal <br> code/city | Telephone | Website |
| :---: | :---: | :---: | :---: | :---: |
| National Poisons Information <br> Service <br> City Hospital Dudley Rd | B187QH <br> Birmingham | 8448920111 |  |  |

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification acc. to GHS
This mixture does not meet the criteria for classification.
2.2 Label elements

Labelling
not required

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acc. to Regulation (EC) No. 1907/2006 (REACH)

Roti®-Pol Mix TaqHY 2x conc., ready-to-use article number: 1K33
2.3 Other hazards

Results of PBT and vPvB assessment
Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1 \%$.
Endocrine disrupting properties
Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1 \%$.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

not relevant (mixture)
3.2 Mixtures

Description of the mixture

| Name of substance | Identifier | Wt\% | Classification acc. to GHS | Pictograms | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ethylene glycol | CAS No $107-21-1$ EC No $203-473-3$ Index No $603-027-00-1$ | $<20$ | Acute Tox. 4 / H302 STOT RE 2 / H373 |  | GHS-HC IOELV |

## Notes

GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/ 2008/EC, Annex VI)
IOELV: Substance with a community indicative occupational exposure limit value

| Name of sub- <br> stance | Identifier | Specific Conc. Limits | M-Factors | ATE | Exposure <br> route |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ethylene glycol | CAS No <br> $107-21-1$ | - | - | $500 \mathrm{mg} / \mathrm{kg}$ | oral |
|  | EC No <br> $203-473-3$ |  |  |  |  |

For full text of abbreviations: see SECTION 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



## General notes

No special measures are necessary.
Following inhalation
Provide fresh air.
Following skin contact
Rinse skin with water/shower.

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Roti®-Pol Mix TaqHY 2x conc., ready-to-use
article number: 1K33
Following eye contact
Rinse cautiously with water for several minutes.
Following ingestion
Rinse mouth. Call a doctor if you feel unwell.
4.2 Most important symptoms and effects, both acute and delayed Vomiting
4.3 Indication of any immediate medical attention and special treatment needed none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media



## Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide $\left(\mathrm{CO}_{2}\right)$

Unsuitable extinguishing media
water jet
5.2 Special hazards arising from the substance or mixture

None.
Hazardous combustion products
In case of fire may be liberated: Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide ( $\mathrm{CO}_{2}$ )
5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures


For non-emergency personnel
No special measures are necessary.
6.2 Environmental precautions

Keep away from drains, surface and ground water.
6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill
Covering of drains.
Other information relating to spills and releases
Place in appropriate containers for disposal. Ventilate affected area.

Roti®-Pol Mix TaqHY 2x conc., ready-to-use

### 6.4 Reference to other sections

Hazardous combustion products: see section 5 . Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

No special measures are necessary.
Advice on general occupational hygiene
Keep away from food, drink and animal feedingstuffs.
7.2 Conditions for safe storage, including any incompatibilities

Keep in a cool place.

## Incompatible substances or mixtures

Observe hints for combined storage.
Consideration of other advice:
Specific designs for storage rooms or vessels
Recommended storage temperature: $-20^{\circ} \mathrm{C}$
7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

National limit values
Occupational exposure limit values (Workplace Exposure Limits)

| $\begin{aligned} & \text { Cou } \\ & \text { ntr } \\ & \mathrm{y} \end{aligned}$ | Name of agent | CAS No | Identifier | $\begin{gathered} \text { TW } \\ \text { A } \\ \text { [pp } \\ \text { m] } \end{gathered}$ | TWA [mg/ $\mathrm{m}^{3}$ ] | $\begin{gathered} \text { STE } \\ \text { L } \\ \text { [pp } \end{gathered}$ | STEL [mg/ $\mathrm{m}^{3}$ ] | Ceil ing[pp m] | $\begin{aligned} & \text { Ceil- } \\ & \text { ing-c } \\ & {\left[\mathrm{mg}^{\prime}\right.} \\ & \left.\mathrm{m}^{3}\right] \end{aligned}$ | Notation | Source |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EU | ethylene glycol | 107-21-1 | IOELV | 20 | 52 | 40 | 104 |  |  | H | $\begin{gathered} 2000 / 39 / \\ E C \end{gathered}$ |
| GB | ethane-1,2-diol | 107-21-1 | WEL |  | 10 |  |  |  |  | $\begin{gathered} \text { particl } \\ \mathrm{e} \end{gathered}$ | $\begin{gathered} \hline \text { EH40/ } \\ 2005 \end{gathered}$ |
| GB | ethane-1,2-diol | 107-21-1 | WEL | 20 | 52 | 40 | 104 |  |  | vap | $\begin{gathered} \text { EH40/ } \\ 2005 \end{gathered}$ |
| GB | glycerol | 56-81-5 | WEL |  | 10 |  |  |  |  | mist | $\begin{aligned} & \hline \text { EH4O/ } \\ & 2005 \end{aligned}$ |

Notation

| Ceiling-C | Ceiling value is a limit value above which exposure should not occur |
| :--- | :--- |
| H | Absorbed through the skin |

Roti®-Pol Mix TaqHY 2x conc., ready-to-use
article number: 1K33

| Relevant DNELs of components of the mixture |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of sub- <br> stance | CAS No | End- <br> point | Threshol <br> d level | Protection <br> goal, route of <br> exposure | Used in | Exposure time |
| Ethylene glycol | $107-21-1$ | DNEL | $35 \mathrm{mg} / \mathrm{m}^{3}$ | human, inhalat- <br> ory | worker (industry) | chronic - local ef- <br> fects |
| Ethylene glycol | $107-21-1$ | DNEL | $106 \mathrm{mg} / \mathrm{kg}$ <br> bw/day | human, dermal | worker (industry) | chronic - systemic <br> effects |

## Relevant PNECs of components of the mixture

| Name of sub- <br> stance | CAS No | End- <br> point | Threshol <br> d level | Organism | Environmental <br> compartment | Exposure time |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ethylene glycol | $107-21-1$ | PNEC | $10 \mathrm{mg} / \mathrm{l}$ | aquatic organ- <br> isms | freshwater | short-term (single <br> instance) |
| Ethylene glycol | $107-21-1$ | PNEC | $1 \mathrm{mg} / /$ | aquatic organ- <br> isms | marine water | short-term (single <br> instance) |
| Ethylene glycol | $107-21-1$ | PNEC | $199,5^{\mathrm{mg} / /}$ | aquatic organ- <br> isms | sewage treatment <br> plant (STP) | short-term (single <br> instance) |
| Ethylene glycol | $107-21-1$ | PNEC | $37 \mathrm{mg} / \mathrm{kg}$ | aquatic organ- <br> isms | freshwater sedi- <br> ment | short-term (single <br> instance) |
| Ethylene glycol | $107-21-1$ | PNEC | $3,7 \mathrm{mg} / \mathrm{kg}$ | aquatic organ- <br> isms | marine sediment | short-term (single <br> instance) |
| Ethylene glycol | $107-21-1$ | PNEC | $1,53 \mathrm{mg} / \mathrm{kg}$ | terrestrial organ- <br> isms | soil | short-term (single <br> instance) |

### 8.2 Exposure controls

Individual protection measures (personal protective equipment)
Eye/face protection


Use safety goggle with side protection.
Skin protection


- hand protection

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

## - type of material

NBR (Nitrile rubber)

- material thickness
$>0,11 \mathrm{~mm}$
- breakthrough times of the glove material
>480 minutes (permeation: level 6)


## Roti®-Pol Mix TaqHY 2x conc., ready-to-use

article number: 1K33

- other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.
Respiratory protection


Respiratory protection necessary at: Aerosol or mist formation. Usually no personal respirative protection necessary.

Environmental exposure controls
Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state
Colour
Odour
Melting point/freezing point
Boiling point or initial boiling point and boiling range

Flammability
Lower and upper explosion limit
Flash point
Auto-ignition temperature
Decomposition temperature
pH (value)
Kinematic viscosity

Solubility(ies)
Water solubility

Partition coefficient
Partition coefficient n-octanol/water (log value): this information is not available

Vapour pressure

Density and/or relative density
Density
Relative vapour density
liquid
acc. to product description
this information is not available
not determined
$100^{\circ} \mathrm{C}$ at 1.013 hPa
non-combustible
not determined
not determined
not determined
not relevant
not determined
not determined
miscible in any proportion

23 hPa at $20^{\circ} \mathrm{C}$
$\sim 1 \mathrm{~g} / \mathrm{cm}^{3}$ at $20^{\circ} \mathrm{C}$
information on this property is not available

## Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)

## Roti $®$-Pol Mix TaqHY 2x conc., ready-to-use

article number: 1K33

Particle characteristics

Other safety parameters
Oxidising properties none

### 9.2 Other information

Information with regard to physical hazard classes:

Other safety characteristics:
Miscibility completely miscible with water

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

Violent reaction with: strong oxidiser

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

There is no additional information.

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

## Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

## Classification acc. to GHS

This mixture does not meet the criteria for classification.

## Acute toxicity

Shall not be classified as acutely toxic.
Acute toxicity estimate (ATE) of components of the mixture

| Name of substance | CAS No | Exposure route | ATE |
| :---: | :---: | :---: | :---: |
| Ethylene glycol | $107-21-1$ | oral | $500 \mathrm{mg} / \mathrm{kg}$ |

## Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)
Roti®-Pol Mix TaqHY 2x conc., ready-to-use
article number: 1K33

## Acute toxicity of components of the mixture

| Name of substance | CAS No | Exposure <br> route | Endpoint | Value | Species |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ethylene glycol | $107-21-1$ | dermal | LD50 | $>3.500 \mathrm{mg} / \mathrm{kg}$ | mouse |
| Ethylene glycol | $107-21-1$ | oral | LD50 | $4.700 \mathrm{mg} / \mathrm{kg}$ | rat |

## Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

## Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

## Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

## Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

## Carcinogenicity

Shall not be classified as carcinogenic.

## Reproductive toxicity

Shall not be classified as a reproductive toxicant.
Specific target organ toxicity - single exposure
Shall not be classified as a specific target organ toxicant (single exposure).
Specific target organ toxicity - repeated exposure
Shall not be classified as a specific target organ toxicant (repeated exposure).

| Hazard category | Target organ | Exposure route |
| :---: | :---: | :---: |
| 2 | kidney | if swallowed |

## Aspiration hazard

Shall not be classified as presenting an aspiration hazard.
Symptoms related to the physical, chemical and toxicological characteristics

- If swallowed
vomiting, nausea


## - If in eyes

Data are not available.

## - If inhaled

Data are not available.

## - If on skin

Data are not available.

## - Other information

none

### 11.2 Endocrine disrupting properties

## Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)

## Roti®-Pol Mix TaqHY 2x conc., ready-to-use

article number: 1K33
Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1 \%$.

### 11.3 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

## Aquatic toxicity (acute) of components of the mixture

| Name of sub- <br> stance | CAS No | Endpoint | Value | Species | Exposure <br> time |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ethylene glycol | $107-21-1$ | LC50 | $>72.860 \mathrm{mg} / /$ | fish | 96 h |
| Ethylene glycol | $107-21-1$ | EC50 | $>100 \mathrm{mg} / /$ | daphnia magna | 48 h |
| Ethylene glycol | $107-21-1$ | ErC50 | $<13.000 \mathrm{mg} / /$ | algae | 96 h |

Aquatic toxicity (chronic) of components of the mixture

| Name of sub- <br> stance | CAS No | Endpoint | Value | Species | Exposure <br> time |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ethylene glycol | $107-21-1$ | LC50 | $>1.500 \mathrm{mg} / /$ | fish | 28 d |
| Ethylene glycol | $107-21-1$ | EC50 | $>15.000 \mathrm{mg} / /$ | aquatic invertebrates | 21 d |

### 12.2 Persistence and degradability

## Degradability of components of the mixture

| Name of <br> substance | CAS No | Process | Degrada- <br> tion rate | Time | Method | Source |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ethylene glycol | $107-21-1$ | biotic/abiotic | $83-96 \%$ | 14 d |  |  |
| Ethylene glycol | $107-21-1$ | DOC removal | $90-100 \%$ | 10 d |  | ECHA |

### 12.3 Bioaccumulative potential

Data are not available.
Bioaccumulative potential of components of the mixture

| Name of substance | CAS No | BCF | Log KOW | BOD5/COD |
| :---: | :---: | :---: | :---: | :---: |
| Ethylene glycol | $107-21-1$ |  | $-1,36$ |  |

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1 \%$.

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1 \%$.

## Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)

Roti®-Pol Mix TaqHY 2x conc., ready-to-use
article number: 1K33

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods



Consult the appropriate local waste disposal expert about waste disposal.

## Sewage disposal-relevant information

Do not empty into drains.

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

## SECTION 14: Transport information

14.1 UN number or ID number
14.2 UN proper shipping name
14.3 Transport hazard class(es)
14.4 Packing group
14.5 Environmental hazards
not subject to transport regulations
not assigned
none
not assigned
non-environmentally hazardous acc. to the dangerous goods regulations

### 14.6 Special precautions for user

There is no additional information.
14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

### 14.8 Information for each of the UN Model Regulations

International Maritime Dangerous Goods Code (IMDG) - Additional information
Not subject to IMDG.
International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information Not subject to ICAO-IATA.

## Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)
Roti®-Pol Mix TaqHY 2x conc., ready-to-use article number: 1K33

## SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

Seveso Directive

| $\mathbf{2 0 1 2 / 1 8 / E U ~ ( S e v e s o ~ I I I ) ~}$ |  |  |  |
| :---: | :---: | :---: | :---: |
| No | Dangerous substance/hazard categories | Qualifying quantity (tonnes) for the ap- <br> plication of lower and upper-tier re- <br> quirements | Notes |
|  | not assigned |  |  |

## Deco-Paint Directive

| VOC content | $9,024 \%$ |
| :--- | :--- |
| VOC content (Water content was discounted) | $788,29 / 1$ |

Industrial Emissions Directive (IED)

| VOC content | $9,024 \%$ |
| :--- | :--- |
| VOC content (Water content was discounted) | $788,29 / 1$ |

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)
none of the ingredients are listed
Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)
none of the ingredients are listed
Regulation on the marketing and use of explosives precursors
none of the ingredients are listed
Regulation on drug precursors
none of the ingredients are listed
Regulation on substances that deplete the ozone layer (ODS)
none of the ingredients are listed
Regulation concerning the export and import of hazardous chemicals (PIC)
none of the ingredients are listed
Regulation on persistent organic pollutants (POP)
none of the ingredients are listed
National regulations(GB)
List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list
none of the ingredients are listed

Roti®-Pol Mix TaqHY 2x conc., ready-to-use
article number: 1K33
Restrictions according to GB REACH, Annex 17
Dangerous substances with restrictions (GB REACH, Annex 17)

| Name of substance | Name acc. to inventory | CAS No | No |
| :---: | :---: | :---: | :---: |
| Ethylene glycol | this product meets the criteria for classi- <br> fication in accordance with Regulation No <br> $1272 / 2008 / E C$ | 3 |  |

## Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive ( $92 / 85 / \mathrm{EEC}$ ) for expectant or nursing mothers.

National inventories

| Country | Inventory | Status |
| :---: | :---: | :--- |
| AU | AIIC | not all ingredients are listed |
| CA | DSL | not all ingredients are listed |
| CN | IECSC | not all ingredients are listed |
| EU | ECSI | not all ingredients are listed |
| EU | REACH Reg. | not all ingredients are listed |
| JP | CSCL-ENCS | not all ingredients are listed |
| JP | ISHA-ENCS | not all ingredients are listed |
| KR | KECI | not all ingredients are listed |
| MX | INSQ | not all ingredients are listed |
| NZ | NZIoC | not all ingredients are listed |
| PH | PICCS | not all ingredients are listed |
| TR | CICR | not all ingredients are listed |
| TW | TCSI | not all ingredients are listed |
| US | TSCA | not all ingredients are listed |

Legend
AIIC Australian Inventory of Industrial Chemicals
CICR Chemical Inventory and Control Regulation
CSCL-ENCS List of Existing and New Chemical Substances (CSCL-ENCS)
$\begin{array}{ll}\text { DSL } & \text { Domestic Substances List (DSL) } \\ \text { ECSI } & \text { EC Substance Inventory (EINECS, ELINCS, NLP) }\end{array}$
IECSC Inventory of Existing Chemical Substances Produced or Imported in China
INSQ National Inventory of Chemical Substances
ISHA-ENCS Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI Korea Existing Chemicals Inventory
NZIoC New Zealand Inventory of Chemicals
PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg. REACH registered substances
TCSI $\quad$ Taiwan Chemical Substance Inventory
TSCA Toxic Substance Control Act

### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## Roti®-Pol Mix TaqHY 2x conc., ready-to-use

article number: 1K33

## SECTION 16: Other information

## Indication of changes (revised safety data sheet)

| Section | Former entry (text/value) | Actual entry (text/value) | Safety-relevant |
| :---: | :---: | :---: | :---: |
| 2.1 | Classification according to Regulation (EC) No 1272/2008 (CLP): <br> This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC. | Classification acc. to GHS: <br> This mixture does not meet the criteria for classification. | yes |
| 2.3 | Results of PBT and vPvB assessment: <br> This mixture does not contain any substances that are assessed to be a PBT or a vPvB. | Results of PBT and vPvB assessment: Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1 \%$. | yes |
| 2.3 |  | Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1 \%$. | yes |
| 14.8 | Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information: <br> Not subject to ADR, RID and ADN. |  | yes |
| 15.1 | Restrictions according to REACH, Annex XVII |  | yes |
| 15.1 |  | Dangerous substances with restrictions (REACH, Annex XVII): change in the listing (table) | yes |
| 15.1 |  | VOC content (Water content was discounted): $788,29 / 1$ | yes |
| 15.1 |  | VOC content (Water content was discounted): $788,2^{9 / 1}$ | yes |
| 15.1 |  | National regulations(GB) | yes |
| 15.1 |  | List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list: none of the ingredients are listed | yes |
| 15.1 |  | Restrictions according to GB REACH, Annex 17 | yes |
| 15.1 |  | Dangerous substances with restrictions (GB REACH, Annex 17): change in the listing (table) | yes |
| 15.1 |  | Other information: <br> Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. | yes |
| 15.1 |  | National inventories: change in the listing (table) | yes |

## Abbreviations and acronyms

## Roti®-Pol Mix TaqHY 2x conc., ready-to-use

article number: 1K33

| Abbr. | Descriptions of used abbreviations |
| :---: | :---: |
| 2000/39/EC | Commission Directive establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC |
| Acute Tox. | Acute toxicity |
| ADR | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road) |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| BOD | Biochemical Oxygen Demand |
| CAS | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances) |
| Ceiling-C | Ceiling value |
| COD | Chemical oxygen demand |
| DGR | Dangerous Goods Regulations (see IATA/DGR) |
| DNEL | Derived No-Effect Level |
| EC50 | Effective Concentration $50 \%$. The EC50 corresponds to the concentration of a tested substance causing $50 \%$ changes in response (e.g. on growth) during a specified time interval |
| EC No | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) |
| EH40/2005 | EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/) |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| ELINCS | European List of Notified Chemical Substances |
| ErC50 | $\equiv E C 50$ : in this method, that concentration of test substance which results in a $50 \%$ reduction in either growth (EbC50) or growth rate (ErC50) relative to the control |
| GB REACH | The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended) |
| GHS | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations |
| IATA | International Air Transport Association |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA) |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods Code |
| index No | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation <br> (EC) No 1272/2008 |
| IOELV | Indicative occupational exposure limit value |
| LC50 | Lethal Concentration 50\%: the LC50 corresponds to the concentration of a tested substance causing $50 \%$ lethality during a specified time interval |
| LD50 | Lethal Dose $50 \%$ : the LD50 corresponds to the dose of a tested substance causing $50 \%$ lethality during a specified time interval |
| log KOW | n-Octanol/water |
| NLP | No-Longer Polymer |
| PBT | Persistent, Bioaccumulative and Toxic |

## Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)
Roti®-Pol Mix TaqHY 2x conc., ready-to-use
article number: 1K33

| Abbr. | Descriptions of used abbreviations |
| :---: | :---: |
| PNEC | Predicted No-Effect Concentration |
| ppm | Parts per million |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| STEL | Short-term exposure limit |
| STOT RE | Specific target organ toxicity - repeated exposure |
| TWA | Time-weighted average |
| VOC | Volatile Organic Compounds |
| vPvB | Very Persistent and very Bioaccumulative |
| WEL | Workplace exposure limit |

## Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

## Classification procedure

Physical and chemical properties. The classification is based on tested mixture.
Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

| Code | Text |
| :---: | :---: |
| H302 | Harmful if swallowed. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

## Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

