



## Material safety data sheet: Enviolyte K-Catholyte (91/155/EWG)

### Section 1:

Product and company identification  
Trade name: K-Catholyte or Catholyte

Supplier:  
ENVIOLYTE ? TEL. +46 606060 355 / +45 4692 6060  
www.enviolyte.no - brewery@enviolyte.no

### Section 2:

Composition and information on the ingredients

K-catholyte contains hydroxyls and hydroxyl radicals such as NaOH, H<sub>2</sub>O<sub>2</sub>-, HO-. The solution contains no compounds as per the regulations for toxic compounds (67/548/EWG).

### Section 3:

The solution is classified as non dangerous accordingly to 88/279/EWG.

#### Main Hazards:

K-catholyte in the strongest form may cause slight irritation of throat.

#### Health effects - Eyes:

K-catholyte in the strongest form may cause slight irritation to eyes.

#### Health effects - Skin:

K-catholyte in the strongest form may cause irritation to sensitive skin or open wounds.

#### Health effects - Ingestion:

Swallowing of the solution in its strongest form may cause slight irritation to the throat and digestive tract.

#### Health effects - Inhalation:

During generation of the solution particularly its strong form unless there is adequate ventilation there may be a build up of fumes which may cause dizziness and nausea.

### Section 4:

First aid Measures

#### Eye contact:

Where irritation occurs flush with cool fresh water

#### Skin Contact:

Where irritation occurs wash the skin wash with soap and warm water  
Ingestion:

Drink cool fresh water to flush through and dilute

#### Inhalation:

Move to fresh air. If dizziness and nausea persist seek medical attention

### Section 5:

Fire Fighting Measures

There are no special requirements for these solutions they are not flammable

### Section 6:

Accidental Release Measures

#### Personal precautions:

None

#### Environmental precautions:

The solution is biodegradable and has a limited activation period so there are no potential risks to the environment

#### Spillage:

Wipe up with disposable towels, there are no special disposal instructions.

### Section 7:

Handling and Storage

#### Handling:

In the area where the solution is being produced there must be good ventilation. Preferably local exhaust ventilation. For those with very sensitive skin it may be advisable to wear gloves.

#### Storage:

Store in a cool dry ventilated area in sealed plastic containers and ensure the solution is correctly labelled. Shelf life up to 12 months.

### Section 8:

Personal Protection and Exposure Control

#### Engineering control procedures:

Where K-Catholyte is being generated on site some engineering solutions should be implemented to prevent the build up of fumes particularly if production facility has inadequate ventilation. Mechanical fume extraction may be necessary in this situation. Documented process, safety control and personnel protection where necessary, gloves, mask etc.

#### Respiratory Protection:

Where there is a high risk to fumes build up due to inadequate ventilation in a processing area a respirator should be worn.

#### Hand protection:

Where service personnel have sensitive skin the strongest solutions may cause irritation and therefore protective gloves should be worn.

#### Eye and facial protection:

There are no requirements.

#### Body protection:

Normal industrial work wears to avoid exposed skin when handling neat strong solution.

### Section 9:

Chemical and Physical Properties

Physical state:	Liquid
Colour and Appearance:	Clear, transparent liquid (like water)
Odour:	Slight chlorine smell varying with the strength of the solution
Solubility in water:	Completely soluble
PH-values:	10-13
Melting-point:	0oC.
Boiling-point:	100oC.
Fire-focus:	N/A
Flammability:	None
Explosive:	N/A
Density:	app. 1,000 kg.m <sup>3</sup>
Steam-pressure:	app. 2,330 Pa

### Section 10:

Stability and Reactivity

#### Stability:

Stable under all normal storage conditions.

#### Materials to avoid:

The solution does not react with other materials.

#### Hazardous decomposition products:

None

### Section 11:

Toxicological Information

#### Acute toxicity:

Not toxic

#### Irritant-Eyes:

Data for related material suggests this could produce conjunctivitis irritation.

#### Irritant-Skin:

Data for related material suggests this may cause skin irritation.

#### Reproductive and developmental:

None known.

#### Skin contact:

The possibility of allergic sensitisation should be considered.

#### Chronic toxicity/Carcinogens:

None.

#### Human Data:

Inhalation may cause respiratory irritation.

### Section 12

Environmental Information

#### Eco toxicity:

None.

#### Degradability and Persistence:

Fully Biodegradable

#### Bio-accumulation:

None

#### Mobility:

None

### Section 13

Disposal Procedures

There are no special disposal procedures

### Section 14

Transport procedures

Not classified as hazardous for transport

### Section 15

Regulatory Information

Not listed

### Section 16

Other Information

The information in this document meets the European requirements for safety and health measurements. (91/155/EWG)

The information contained in this document is based on data considered to be accurate at the time of publication and is given free of charge. It is representative of typical product but batch may exhibit minor variations.

NO warranty is expressed or implied concerning the accuracy of this data.

In case of doubt or for clarification Enviolyte should be consulted. Enviolyte is unable to anticipate all conditions under which the product may be used, and users are advised to carry out an assessment of workplace risk and carry out their own tests to determine Safety and Suitability for the process and conditions of use.

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