



Material safety data sheet 1

Enviolyte ANK-Neutral Anolyte (91/155/EWG)

Section 1: Product and company identification

Trade name: **ANK-Neutral Anolyte**

Manufacturer/Supplier:

Enviolyte Industries International Ltd.
Narva str.1-330, 10111 Tallinn, Estonia
Tel: +372 6626630
Fax: +372 6626631

Section 2: Composition and information on the ingredients

ANK-Neutral Anolyte contains active chlorine compounds such as HClO and ClO⁻ (C.ac in mg/l) in the range of 0,001-0, 09%. The average/standard amount of active chlorine is ~0, 05%. The solution contains no compounds as per the regulations for toxic compounds (67/548/EWG)

Section 3: Hazards identification

The solution is classified as non dangerous accordingly (88/279/EWG)

Main Hazards:

ANK-Neutral Anolyte in its strongest form (C.ac >600mg/l) may cause irritation to the eyes, sensitive skin and throat. Where the solution is stored in bottles one should try to smell or inhale the evaporations.

Health effects Eyes:

ANK- Neutral Anolyte in its strongest form may cause irritation to the eyes.

Health effects Skin:

ANK - Neutral Anolyte in its strongest form may cause slight irritation to sensitive skin or open wounds.

Health effects Ingestion:

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

Health effects Inhalation:

During generation of ANK-Neutral Anolyte, 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:

Remove at once to fresh air if dizziness and nausea persist seek medical attention

Section 5: Fire Fighting Measures

There are no special requirements for ANK-Neutral Anolyte .It is 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

Section 8: Personal Protection and Exposure Control

Engineering control procedures:

Where the solution is being generated on site some engineering solutions should be implemented to prevent the build up of fumes particularly where production facility has inadequate ventilation. Mechanical fume extraction may be advised in this situation.

Documented process, safety controls 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 solution 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:	Chlorine odour depending on strength of the solution
Solubility in water:	Completely soluble
PH-values:	7, 5-8, 5
Melting-point:	0°C.
Boiling-point:	100°C.
Fire-focus:	N/A
Flammability:	None
Explosive:	N/A
Density:	app. 1,000 kg.m ³
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:

Destroys bacteria, viruses, spores and algae

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 batches may exhibit minor variations.

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

In case of doubt or for clarification Envirolyte should be consulted. Envirolyte 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.

This information is intended for use in the EC-countries only as different limits may be set in other countries. Please check your Local and National Authorities or Supplier. (91/155/EWG)

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Material safety data sheet 2

Envirolyte K-Catholyte (91/155/EWG)

Section 1: Product and company identification

Trade name: **K-Catholyte or Catholyte**

Manufacturer/Supplier:

Envirolyte Industries International Ltd.
Narva Str.1-330, 10111 Tallinn, Estonia
Tel: +372 6626630
Fax: +372 6626631

Section 2: Composition and information on the ingredients

K-catholyte contains hydroxyls and hydroxyl radicals such as NaOH, H₂O₂-,HO-.The solution contains no compounds as per the regulations for toxic compounds (67/548/EWG).

Section 3: Hazards identification

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:	0°C.
Boiling-point:	100°C.
Fire-focus:	N/A
Flammability:	None
Explosive:	N/A
Density:	app. 1,000 kg.m ³
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

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