NADES 2-0

aquagroup
Aktiengesellschaft

Biocide / Disinfectant

Produced by ECA Technology and ECA System of Aquagroup AG, Germany

NADES 2.0

ECA (Electro Chemically Activated) Solution/Disinfectant to safe and improve the microbial quality of water, food, environment and surface area. This disinfectant is produced by the electrolysis of natural ingredients (water and salt (NaCl)) only.

One For All. Perfect form of Disinfection. (Kills 99.99% of Germs)

Features

- High antimicrobial efficacy
- Effective against all known microorganism & biofilm (including bacteria, virus, algae, fungi and spore)
- No harmful Chlorates
- Environmentally friendly
- Non-irritating
- High Worker Safety
- Produced by natural and food grade ingredients
- Easy to use
- Quick acting against Germs

Fields of Applications

- Water, Beverage, Dairy and Brewing Industry
- Meat, Sea Food Industry
- Poultry Farms, Slaughter House & Abattoir
- Live Stock & Dairy Farm
- Hotel, Resort, Hotel Apartment, Villa, Commercial & Residential Building
- Schools
- Hospital and Clinic
- Restaurant, Kitchen & Cafeteria
- Fruits & Vegetables Processing Co.
- Cooling Tower Industry
- Cosmetic & Pharma Co.
- Biogas Plants
- Cruise Liner & Off Shore

Applications of NADES 2.0

Water Treatment	Surface Disinfection	Product Microbial Decontamination
• Drinking water treatment • Process water treatment • Swimming pool water treatment • Cooling tower water treatment • Waste/Sewerage water treatment • Lake water treatment • Irrigation water treatment	• Floor/Wall/Tables • CIP/Machines • Filler head microbial decontamination • Bottle rinsing • Reused bottles rinsing • Water pipeline and water system flushing • Tank disinfection • Utensils/Equipment	• Fruit/Vegetable sanitation • Fish microbial decontamination • Carcass washing • Meat/Sea Food microbial decontamination
Dosage – 1% - 5% **Contact Time : 1 – 5 Min**	**Dosage – 2 % to 5 %** **Contact Time : 1 – 5 Min**	**Dosage – 1% - 5%** **Contact Time : 1 – 5 Min**

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TECHNICAL SPECIFICATIONS

Section-1

Product identifier **NADES 2.0**

Relevant Uses **Biocide/Disinfectant**

Details of the supplier of the safety data sheet

Supplied by **Fayfa Chemicals** (Aquagroup Swiss GmbH - Dubai Branch)
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support@fayfachemicals.com

Section-2

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/ 2008 [CLP] not applicable

Classification according to Regulation 67/548/EEC or 1999/45/EC
Hazard symbols none
R-phrases none
The product does not require a hazard warning label in accordance with EC-directives.

Label elements
Labeling according to Regulation 67/548/EEC or 1999/ 45/EC
Hazard symbols none
R-phrases none
Biocide (98/8/CE) contains
0.8/100g Sodium hypochlorite
Regulation:

Other hazards
Human health dangers No particular hazards known.
Environment hazards The product/the substance in concentrated farm is hazardous to water.

Section-3

Product-type:
The product is a mixture.

Range [%]	substance
0, 1 – 0, 8	**Sodium hypochlorite** CAS: 7681-52-9, EINECS/ELINCS: 231-668-3, EU-INDEX: 017-011-00-1 GHS/CLP: Met. Corr. 1 – H290 – Skin Corr. 1B – H314 – Aquatic Acute 1-H400 – EUH 031 EEC: C-N, R 31-34-50
<3	**Sodium chloride** CAS: 7647-14-5, EINECS/ELINCS: 231-598-3 GHS/CLP:
<0,0002	**Sodium hydroxide** CAS: 1310-73-2, EINECS/ELINCS: 215-185-5, EU-INDEX: 017-011-00-1 GHS/CLP: Skin Corr. 1A – H314 EEC: C, R 35

Section-4

Personal precautions, protective equipment and - emergency procedures
Ensure adequate ventilation.
Use personal protective equipment.

Environmental precautions
Do not discharge 100% concentrate into the drains/surface waters/groundwater.
Prevent spread over a wide area (e.g. by containment or oil barriers).

Section-5

Description of first aid measures

General information Change soaked clothing

Inhalation Ensure supply of fresh air

Skin contact When in contact with the skin, clean with soap and water.
Consult a doctor if skin irritation persists.

Eye contact In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

Ingestion Do not induce vomiting.
Rinse out mouth and give plenty of water to drink.
Supply with medical care.

Section-6

Precautions for safe handling
Use only in well-ventilated areas.
The normal safety precautions for handling chemicals must be observed.

Conditions for safe storage, including any incompatibilities
Keep only in original container.
Prevent penetration into the ground.
Do not store together with acids.
Keep container tightly closed.
Keep container in a well-ventilated place.
Keep in a cool place.

Section-7

Information on basic physical and chemical properties

Form	Liquid
Color	Light yellowish
Odor	Chlorine
pH-value	9,5
Density [g/ml]	1,2
Solubility in water	soluble

Section-8

Reactivity No dangerous reactions known if used as directed.

Chemical stability Stable under normal ambient conditions (ambient temperature).

Possibility of hazardous reactions
Reactions with oxidizing agents.

Conditions to avoid strong heating.

Incompatible materials Sodium hypochlorite: Evolution of chlorine under influence of acids.

Hazardous decomposition products
Chlorine compounds.

Section-9

Information on toxicological effects
Acute toxicity

Range [%]	Substance
0, 1 – 0, 8	**Sodium hypochlorite:** CAS: 7681-52-9 LD50, oral, Rat: > 5000 mg/kg (IUCLID). LC50, inhalative, Rat: > 10,5 mg/l (IUCLID).
<3	**Sodium chloride,** CAS: 7647-14-5 LD50, oral, Rat: 3000 mg/kg bw (IUCLID).
< 0,0002	**Sodium hydroxide,** CAS 1310-73-2 LD50, oral Rat: 2000 mg/kg (Lit.). LD50, dermal, Rabbit: 1350 mg/kg (IUCLID).

Section-10

Toxicity

Range [%]	Substance
0, 1 – 0, 8	**Sodium hypochlorite:** CAS: 7681-52-9 EC50, (48h), Daphnia magna: 0,01-0,1 mg/L. M=10 LC50, (96h), fish:0,01-0,1mg/L M=0
<3	**Sodium chloride,** CAS: 7647-14-5 EC50, (48h), Daphnia magna: 1000 mg/L (IUCLID). LC50, (96h), Lepomis macrochirus: 9675 mg/L (IUCLID).
< 0,0002	**Sodium hydroxide,** CAS 1310-73-2 LC50, (96h), fish: 35 – 189 mg/L. LC50, (96h), Oncorhynchus mykiss: 45,4 mg/L (IUCLID)(50%) EC50, (24h), Daphnia magna: 76 mg/L (50%).

Section-11

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

EEC-REGULATIONS 1967/548 (199/45); 1991/689 (2001/ 118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach); 1272/2008; 75/ 324/EEC (2008/47/EC); 453/2010/EC

TRANSPORT-REGULATIONS
DOT-Classification, ADR (2011);IMDG-Code (2011, 35. Amdt.); IATA-DGR (2012).

NATIONAL REGULATIONS (GB):
EH40/2005 Workplace exposure limits with amendments October 2007. CHIP 3/ CHIP 4

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

Note: For further information please see MSDS