

**IN-ECO® 120**

According to the Regulation No. 1907/2006/EC (REACH) and No. 2015/830/EC

Version: 2022-09-07 / EN

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**Mixture name: **IN-ECO® 120**

Chemical name: Sodium hydroxide and benzothiazole aqueous solution.

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses: Corrosion inhibitor of copper and copper-containing alloys, designed for cooling water treatment.

**1.3. Details of the supplier of the safety data sheet**

Company: JSC „Arionex LT“

Address: Ašigalio g. 6c, LT-49142, Kaunas

Telephone: +370 37 214669

E-mail: [info@arionex.eu](mailto:info@arionex.eu)**1.4. Emergency telephone**

Poisoning control and information bureau

Address: Šiltnamų g. 29, LT -2043 Vilnius

Telephone number: 8 5 236 20 52

Fax: 8 5 236 21 42

E-mail: [info@tox.lt](mailto:info@tox.lt)

Work time: All day (24 hours).

**SECTION 2: Hazards Identification****2.1. Classification of the substance or mixture****According to Regulation (EC) No 1272/2008 [CLP]**

Skin corrosion, Category 1 H314 Causes severe skin burns and eye damage.

Skin sensitization, Category 1 H317 May cause an allergic skin reaction.

Aquatic Acute, Category 1 H400 Very toxic to aquatic life.

Aquatic Chronic, Category 1 H410 Very toxic to aquatic life with long lasting effects.

**2.2. Label elements****According to Regulation (EC) No 1272/2008 [CLP].****Pictogram:**

GHS05



GHS09

**Signal Word:** Danger.**Dangerous components of the mixture:**

Sodium hydroxide, benzothiazole.

**Hazard Statement:**

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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According to the Regulation No. 1907/2006/EC (REACH) and No. 2015/830/EC

Version: 2022-09-07 / EN

**Precautionary Statements:**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 Wash hands thoroughly after handling.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P363 Wash contaminated clothing before reuse.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P273 Avoid release to the environment.  
P391 Collect spillage.  
P501 Dispose of contents/container to accordance with local regulations.

**2.3. Other hazards**

No specific dangers known, if the regulations/notes for storage and handling are considered.

**SECTION 3: Composition/Information on Ingredients****3.1. Substances**

Not applicable.

**3.2. Mixtures**

Chemical name: Sodium hydroxide and benzothiazole aqueous solution.

CAS Nr.	EINECS Nr.	Indekso Nr.	REACH registracijos Nr.	Masės (tūrio) dalis, %	Pavadinimas	Klasifikacija pagal Reglamento (EB) Nr. 1272/2008[CPL/GHS] reikalavimus
2492-26-4	219-660-8	-	-	10 - 20	Benzothiazole	Skin Corr. 1B H314 Skin Sens. 1 H37 Aquatic Acute 1 H400 Aquatic Chronic 1, H410
1310-73-9	215-185-5	011-002-00-6	01-2119457892-27-0000	5-10	Sodium hydroxide	Skin Corr. 1A; H314 Met. Corr. 1; H290

For the full text of the H-statements mentioned in the Section, see Section 16.

**SECTION 4: First-Aid Measures****4.1. Description of first aid measures**

Remove contaminated clothing.

**If inhaled:**

The product is non-volatile.

**On skin contact:**

Remove contaminated clothing, footwear, watches, etc. And clean thoroughly before re-using them. Wash immediately with plenty of water. Seek medical treatment in all cases of irritation or burns.

**On contact with eyes:**

Rinse immediately with plenty of water for at least 15 minutes. Immediately obtain medical attention.

**On ingestion:**Immediately rinse mouth and drink at least 1.5 liters of water. Do NOT induce vomiting. Seek medical attention.

**4.2. Most important symptoms and effects, both acute and delayed****Both acute symptoms:**

If inhaled: The product is non-volatile.

On skin contact: May cause skin irritation, skin burns.

On contact with eyes: Risk of serious damage to eyes.

On ingestion: May cause burns the mouth, throat and stomach.

**Delayed symptoms:**

If inhaled: The product is non-volatile.

On skin contact: Irritation, allergic reactions, skin burns.

On contact with eyes: Pain, tearing, redness, eye damage.

On ingestion: Stomach pains.

**4.4. Indication of any immediate medical attention and special treatment needed**

Treatment: No information available.

**SECTION 5: Fire-Fighting Measures****5.1. Extinguishing media****Suitable extinguishing media:**

All types of extinguishing media are suitable: water, dry powder, carbon dioxide, foam, sand and other.

**5.2. Special hazards arising from the substance or mixture**

Dangerous products of combustion of the mixture was not observed.

**5.3. Advice for fire-fighters**

Wear protective working tools such boots, coveralls, gloves, eye and face protection.

EN 469 - Protective clothing for firemen.

**SECTION 6: Accidental Release Measures****6.1. Personal precautions, protective equipment and emergency procedures****6.1.1. For non-emergency personnel**

Avoid contact with skin and eyes. Wear personal protective equipment as described under Heading 8.

**6.1.2. For emergency responders**

Avoid contact with skin and eyes. Wear personal protective equipment as described under Heading 8.

**6.2. Environmental precautions**

Do not wash product down sewage and drainage systems or into bodies of water.

**6.3. Methods and material for containment and cleaning up**

Absorb the spillage into sand or other inert material, shovel into suitable containers. If containment is not possible and material enters the drain, dilute as much as possible with water.

**6.4. Reference to other sections**

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

**SECTION 7: Handling and Storage****7.1. Precautions for safe handling**

In the workplace equip good ventilation. In the workplace do not eat, drink or smoke.

**7.2. Conditions for safe storage, including any incompatibilities**

The product should be stored in a cool, dry area in PVC or HDPE containers.

Storage stability:

Keep storage area should be dry, cool, 0 to 35 °C.

Unsuitable (incompatible) storage of chemicals: strong acids.

**IN-ECO® 120**

According to the Regulation No. 1907/2006/EC (REACH) and No. 2015/830/EC

Version: 2022-09-07 / EN

**7.3. Specific end use(s)**

Used as an corrosion inhibitor for cooling water treatment.

The concentrated product is dosed by the dispenser pump in proportion to the amount of additional / treated water.

**SECTION 8: Exposure Controls/Personal Protection****8.1. Control parameters**

Components with occupational exposure limits: HN 23:2011 Lithuania:

Substance		Exposure limits		
Name	CAS No	Short-term effects, mg/l	Long-term exposure, mg/l	DNEL, mg/l
Sodium hydroxide	1310-73-2	-	-	2,0

**8.2. Exposure controls****8.2.1. Personal protective equipment****General safety and hygiene measures:** General indoor ventilation. Do not eat, drink or smoke when working with product to avoid contact with skin or mouth. Remove contaminated clothing, footwear, etc., and clean thoroughly before re-using them.**Respiratory protection.** Masks with filters (type P2SL according EN 141/3), filtered respirators FFP2 or FFP2 (EN149).**Eye protection.** Wear approved glasses (EN 166) or safety goggles to prevent contact with eyes.**Skin protection.** Wear rubber gloves resistant to alkaline (natural, neoprene or nitrile rubber, PVC materials), usual work clothes.**8.2.2. Environmental exposure controls**

Do not wash product down sewage and drainage systems or into bodies of water.

**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

<b>Form:</b>	Liquid;
<b>Colour:</b>	Yellowish;
<b>Odour:</b>	Weak smell product;
<b>Odour threshold:</b>	Not determined;
<b>pH, (20 °C):</b>	> 11;
<b>Melting / freezing point:</b>	-5°C;
<b>Density (20 °C):</b>	1,05 ± 0,05 g/cm <sup>3</sup> ;
<b>Solubility:</b>	Soluble in water;
<b>Boiling point/range:</b>	100 ÷ 130 °C;
<b>Flash point:</b>	Not determined;
<b>Evaporation rate:</b>	Not determined;
<b>Flammability:</b>	Not self-igniting;
<b>Partitioning coefficient n-octanol/water (log Kow):</b>	Not applicable;
<b>Self ignition:</b>	Not determined;
<b>Thermal decomposition:</b>	Not determined;
<b>Explosion hazard:</b>	Not explosive;
<b>Viscosity, dynamic:</b>	Not determined;
<b>Oxidizing properties:</b>	None.

**9.2. Other Information**

No data available.

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**SECTION 10: Stability and Reactivity****10.1. Reactivity**

No hazardous reactions if stored and handled as prescribed/indicated.

**10.2. Chemical stability**

The product is stable if stored and handled as prescribed/indicated (see Heading 7).

**10.3. Possibility of hazardous reactions**

The heat released by mixing with strong acids.

**10.4. Conditions to avoid**

Avoid freezing.

**10.5. Incompatible materials**

Strong acids.

**10.6. Hazardous decomposition products**

The product is stable, but heating may release hazardous decomposition products: CO, CO<sub>2</sub>, NO<sub>x</sub>.

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**SECTION 11: Toxicological Information****11.1. Information on toxicological effects****Acute toxicity**

**Eye contact.** Direct contact with product may cause damage to eyes.

**Skin contact.** Direct contact with product may cause skin irritation or skins burns. Skin, LD50 - 1350 mg / kg (rabbits) (NaOH);

**Ingestion.** Oral, rabbit: LD50 = 500 mg/kg (NaOH);

**Inhalation.** Inhalation, rabbit: LC50 = 10 mg/m<sup>3</sup>/2 h (NaOH);

**11.2. Chronic effects**

**Inhalation.** Not volatile.

**Carcinogenicity.** None.

**Mutagenicity.** None.

**Reproductive toxicity.** None.

**Contact dermatitis/Sensitizing effect.** Allergic and sensitive people may develop dermatitis.

**11.3. Medical conditions aggravated by exposure**

None.

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**SECTION 12: Ecological Information****12.1. Toxicity**

The addition of large amounts of product to water may cause a rise in pH (alkalinity).

Information about Sodium hydroxide:

Acute toxicity for fish:

LC 50 = 45,4 mg/l, Oncorhynchus mykiss (Rainbow trout) 96h .

LC 50 = 160 mg/l, Carassius auratus (Goldfish) 24h.

LC 50 = 189 mg/l, Leuciscus idus melanotus (Golden orfe) 48h.

LC 50 = 125 mg/l, Gambusia affinis (Mosquitofish) 24, 48, 96h.

Acute toxicity for invertebrates:

EC 40 – 240 mg/l Daphnia magna (Daphnia Magna).

LC50 = 40 mg/l Ophryotrocha diadema (Marine polychaete) 48h.

Acute toxicity for microorganisms:

EC50 = 22 mg/l Photobacterium phosphoreum (luminescent bacterium)15min.

Additional information:

LC 50 30 – 100 mg/l, Crangon (Crustaceans) и Asteroidne (Starfish), 48h.

**IN-ECO® 120**

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Version: 2022-09-07 / EN

**12.2. Persistence and degradability**

Completely soluble in water.

**12.3. Bioaccumulative potential**

Bioaccumulative potential low.

**12.4. Mobility in soil**

Sodium hydroxide:

Very mobile in soil and soluble in water where its ionization/ neutralization takes place. Is not dispersed in the air.

**12.5. Results of PBT and vPvB assessment**

The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative).

**12.6. Other adverse effects**

Additional advice: No data available.

**SECTION 13: Disposal Considerations****13.1. Waste treatment methods**

Not classified as harmful to aquatic organisms. Not classified as harmful to birds. Not allowed to dispose of empty containers or waste into the environment. Dispose of according to the local legislation. Empty containers should be returned to the supplier.

Waste code: 07 04 01 aqueous washing liquids and mother liquors

**SECTION 14: Transport Information**

The product is not covered by the international regulation on the transport of dangerous goods (IMDG/ IATA, ADR/RID) and therefore no classification is required. No special precautions are needed apart from those mentioned under Heading 8.

**14.1. UN Number**

None.

**14.2. Proper Shipping Name**

None.

**14.3. Transport hazard class(es)**

None.

**14.4. Packing Group**

None.

**14.5. Environmental hazards**

Yes.

**14.6. Special precautions for user**

None.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

None.

**SECTION 15: Regulatory Information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010/EC, Regulation (EC) No 1272/2008 [CLP], Regulation No 2015/830/EC.

**15.2. Chemical Safety Assessment**

Chemical Safety Assessment not required.

**IN-ECO® 120**

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Version: 2022-09-07 / EN

**SECTION 16: Other Information****IN-ECO® 120** - For professional use only.**IN-ECO® 120** - Safety data sheets and technical information developed by the manufacturer.**Full text of H-Statements**

- H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

**Abbreviations:**

CAS – Chemical Abstracts Service  
EINECS – European Inventory of Existing Chemical Substances  
GHS – Globally Harmonised System of Classification and Labelling of Chemicals  
CLP – Classification, labelling and packaging of substances and mixtures  
LC50 – Lethal concentration  
DNEL – Derived no-effect level  
PNEC – Predicted No Effect Concentration  
STOT SE - Specific target organ toxicity - single exposure.

**Product IN-ECO® 120 Label**

Skin corrosion, Category 1  
Skin sensitization, Category 1  
Aquatic Acute, Category 1  
Aquatic Chronic, Category 1

**Pictogram:****Signal Word:** Danger.**Dangerous components of the mixture:**

Sodium hydroxide, benzothiazole.

**Hazard Statement:**

- H314 Causes severe skin burns and eye damage.  
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H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements:**

- P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.  
Rinse skin with water/shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P273 Avoid release to the environment.

*The information on this data sheet reflects the currently available knowledge and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product, including the use of the product in combination with any other product or any other process, is the responsibility of the user. It is implicate that the user is responsible for determining appropriate safety measures and for applying the legislation covering his own activities. Safety data sheet available for professional user on request.*

