

**SAFETY DATA SHEET****ESPO 5L STRONG BLEACH ECONOMY**

Commission Regulation (EU) No 2015/830 of 28 May 2015.

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product name ESPO 5L STRONG BLEACH ECONOMY
Product number 800-106-0010
Container size 5 litres

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

Identified uses Cleaning agent. Disinfectant.
Uses advised against Use only for intended applications.

1.3. Details of the supplier of the safety data sheet

Supplier ESPO
Barnsdale Way
Grove Park
Enderby
Leicester
LE19 1ES
01162657878
coshh@espo.org
Contact person For content of safety data sheet:, coshh@espo.org

1.4. Emergency telephone number

Emergency telephone Emergency Contact Number:01865407333

National emergency telephone number In case of a medical emergency following exposure to a chemical call NHS Direct in England or Wales 0845 46 47 or NHS 24 in Scotland 08454 24 24 24

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification (EC 1272/2008)**

Physical hazards Met. Corr. 1 - H290
Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319
Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411

2.2. Label elements**Pictogram**

Signal word Warning

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Hazard statements	H315 Causes skin irritation. H319 Causes serious eye irritation. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects. H290 May be corrosive to metals.
Precautionary statements	P264 Wash contaminated skin thoroughly after handling. P273 Avoid release to the environment. P302+P352 IF ON SKIN: Wash with plenty of water. 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/ doctor. P501 Dispose of contents/ container in accordance with national regulations.
Supplemental label information	EUH206 Warning! Do not use together with other products. May release dangerous gases (chlorine).
Contains	SODIUM HYPOCHLORITE 4.53%
Biocide Labelling	This product contains substances with biocidal properties., Contains active substance: Sodium Hypochlorite, Read attached instructions before use.
Detergent labelling	< 5% chlorine-based bleaching agents
Supplementary precautionary statements	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use. P234 Keep only in original packaging. P332+P313 If skin irritation occurs: Get medical advice/ attention. P337+P313 If eye irritation persists: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P390 Absorb spillage to prevent material damage. P391 Collect spillage.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

SODIUM HYPOCHLORITE 4.53%			4.53%
CAS number: 7681-52-9	EC number: 231-668-3	REACH registration number: 01-2119488154-34-XXXX	
M factor (Acute) = 10	M factor (Chronic) = 1		
Classification Met. Corr. 1 - H290 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410			

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation	Move affected person to fresh air at once. Get medical attention if any discomfort continues. Rinse nose and mouth with water.
Ingestion	Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Keep affected person under observation. Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.
Skin contact	Remove contaminated clothing. Get medical attention if irritation persists after washing. Rinse immediately with plenty of water.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel. Rinse immediately with plenty of water.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation	Vapours may irritate throat/respiratory system.
Ingestion	This product is strongly irritating. May cause discomfort if swallowed. May cause stomach pain or vomiting.
Skin contact	The product is irritating to eyes and skin. Prolonged or repeated exposure may cause the following adverse effects: Redness. Irritation. Dryness and/or cracking.
Eye contact	The product is irritating to eyes and skin. A single exposure may cause the following adverse effects: Severe irritation, burning, tearing and blurred vision.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire. Foam, carbon dioxide or dry powder.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours. Chlorine. Hydrogen chloride (HCl). Oxides of carbon.
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5.3. Advice for firefighters

Protective actions during firefighting	Control run-off water by containing and keeping it out of sewers and watercourses.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes and clothing. For personal protection, see Section 8.
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6.2. Environmental precautions

Environmental precautions	Collect and dispose of spillage as indicated in Section 13. Do not discharge into drains or watercourses or onto the ground.
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6.3. Methods and material for containment and cleaning up

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Methods for cleaning up

Stop leak if safe to do so. Flush away spillage with plenty of water. Absorb spillage with non-combustible, absorbent material. Do not discharge into drains or watercourses or onto the ground. Absorb in vermiculite, dry sand or earth and place into containers. Do not use sawdust or other combustible material. Provide adequate ventilation. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin and eyes. Avoid inhalation of vapours and spray/mists. Do not mix with acid.

Advice on general occupational hygiene

Good personal hygiene procedures should be implemented. Do not eat, drink or smoke when using this product. Provide eyewash station. Wash promptly with soap and water if skin becomes contaminated. Wash contaminated clothing before reuse. Use appropriate skin cream to prevent drying of skin.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from light. Store away from the following materials: Acids. Store at temperatures between 5°C and 25°C. Keep out of the reach of children.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

SODIUM HYPOCHLORITE 4.53%

Short-term exposure limit (15-minute): WEL 0.5 ppm 1.5 mg/m³

WEL = Workplace Exposure Limit

SODIUM HYPOCHLORITE 4.53% (CAS: 7681-52-9)

DNEL

Industry - Inhalation; Long term local effects: 1.55 mg/m³
 Industry - Inhalation; Long term systemic effects: 1.55 mg/m³
 Industry - Inhalation; Short term local effects: 3.1 mg/m³
 Industry - Inhalation; Short term systemic effects: 3.1 mg/m³
 Consumer - Inhalation; Long term local effects: 1.55 mg/m³
 Consumer - Inhalation; Long term systemic effects: 1.55 mg/m³
 Consumer - Inhalation; Short term local effects: 3.1 mg/m³
 Consumer - Inhalation; Short term systemic effects: 3.1 mg/m³
 Consumer - Oral; Long term systemic effects: 0.26 mg/kg/day

PNEC

- Fresh water; 0.00021 mg/l
 - marine water; 0.000042 mg/l
 - Intermittent release; 0.00026 mg/l
 - STP; 4.69 mg/l
 - ;

8.2. Exposure controls

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Protective equipment



Appropriate engineering controls

Provide adequate ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Polyvinyl chloride (PVC). Rubber (natural, latex). To protect hands from chemicals, gloves should comply with European Standard EN374.

Other skin and body protection

Wear appropriate clothing to prevent repeated or prolonged skin contact. Use appropriate skin cream to prevent drying of skin.

Hygiene measures

When using do not eat, drink or smoke. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Use appropriate skin cream to prevent drying of skin.

Respiratory protection

Respiratory protection not required.

Environmental exposure controls

Avoid releasing into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless to pale yellow.
Odour	Chlorine.
pH	pH (concentrated solution): >11.5
Relative density	1.05 @ @ 20°C
Solubility(ies)	Soluble in water.
Decomposition Temperature	111°C
Explosive properties	There are no chemical groups present in the product that are associated with explosive properties.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.
Comments	Information given is applicable to the product as supplied.

9.2. Other information

Other information	Not relevant.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The reactivity data for this product will be typical of those for the following class of materials:
Acids. Alkalis. Oxidising materials.

10.2. Chemical stability

Stability Decomposes over time. Factors that increase the rate of decomposition: increase in temperature, certain metallic impurities, high initial concentration, fall in pH below 11 and exposure to light. Will decompose at temperatures exceeding 111°C.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Generates toxic gas in contact with acid. Chlorine.

10.4. Conditions to avoid

Conditions to avoid Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Acids. Ammonia. Organic compounds. Some metals. Nickel. Iron. Copper.

10.6. Hazardous decomposition products

Hazardous decomposition products Chlorine. Sodium chlorate Hypochlorous acid. Hydrogen chloride (HCl). Oxides of the following substances: Chlorine.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Information given is based on data of the components and of similar products.

Other health effects Does not contain any substances known to be carcinogenic.

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation. On basis of test data.

Extreme pH ≥ 11.5

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation. On basis of test data.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

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Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

Ingestion

May cause irritation. Symptoms following overexposure may include the following: Stomach pain. Nausea, vomiting. Diarrhoea.

Skin contact

Prolonged or repeated exposure may cause the following adverse effects: Dryness and/or cracking. Redness. Skin irritation.

Eye contact

May cause temporary eye irritation.

Toxicological information on ingredients.

SODIUM HYPOCHLORITE 4.53%

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 8,910.0

Species Rat

Notes (oral LD₅₀) REACH dossier information.

ATE oral (mg/kg) 8,910.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,001.0

Species Rabbit

ATE dermal (mg/kg) 2,001.0

Skin corrosion/irritation

Animal data Corrosive to skin. REACH dossier information. Dose: LD50 = 20g/kg bw, 2 days, Rabbit

Serious eye damage/irritation

Serious eye damage/irritation Corrosivity to eyes is assumed.

Respiratory sensitisation

Respiratory sensitisation Not sensitising.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vivo REACH dossier information. Negative.

ESPO 5L STRONG BLEACH ECONOMY

Carcinogenicity

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility

REACH dossier information. No evidence of reproductive toxicity in animal studies.

SECTION 12: Ecological information

Ecotoxicity

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms. The product contains a substance which is very toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Toxicity

The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms. The product contains a substance which is harmful to aquatic organisms.

Ecological information on ingredients.

SODIUM HYPOCHLORITE 4.53%

Acute aquatic toxicity

LE(C)₅₀

0.01 < L(E)C₅₀ ≤ 0.1

M factor (Acute)

10

Acute toxicity - fish

EC₅₀, 96 hours: 0.01-0.1 mg/l,

Acute toxicity - aquatic invertebrates

EC₅₀, 48 hours: 0.01-0.1 mg/l, Daphnia magna

Acute toxicity - microorganisms

LOEC, : 0.375 mg/l, Activated sludge

Chronic aquatic toxicity

NOEC

0.001 < NOEC ≤ 0.01

Degradability

Rapidly degradable

M factor (Chronic)

1

12.2. Persistence and degradability

Persistence and degradability

The product contains inorganic substances which are not biodegradable. May accumulate in soil and sediment. Substantially removed in biological treatment processes. The surfactant(s) contained in this product complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request, or at the request of a detergent manufacturer.

Ecological information on ingredients.

SODIUM HYPOCHLORITE 4.53%

Stability (hydrolysis)

Water

- Half-life 10% NaOCL: 220 days @ 25°C

- Half-life 5% NaOCL: 790 days @ 25°C

REACH dossier information.

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Biodegradation

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Ecological information on ingredients.

SODIUM HYPOCHLORITE 4.53%

Bioaccumulative potential Low potential for bioaccumulation.

Partition coefficient log Kow: -3.4174 REACH dossier information.

12.4. Mobility in soil

Mobility The product is water-soluble and may spread in water systems.

Ecological information on ingredients.

SODIUM HYPOCHLORITE 4.53%

Henry's law constant 0.076 @ 20°C

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

SODIUM HYPOCHLORITE 4.53%

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects There is evidence that sodium hypochlorite inhibits the aerobic treatment process at a concentration of 0.05 mg/l.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods Dispose of waste product or used containers in accordance with local regulations

SECTION 14: Transport information

General As supplied, this product is consigned under the Limited Quantities provisions. For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

14.1. UN number

UN No. (ADR/RID) 1791

UN No. (IMDG) 1791

UN No. (ICAO) 1791

UN No. (ADN) 1791

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14.2. UN proper shipping name

Proper shipping name (ADR/RID) HYPOCHLORITE SOLUTION

Proper shipping name (IMDG) HYPOCHLORITE SOLUTION (CONTAINS SODIUM HYPOCHLORITE)

Proper shipping name (ICAO) HYPOCHLORITE SOLUTION

Proper shipping name (ADN) HYPOCHLORITE SOLUTION

14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID classification code C9

ADR/RID label 8

IMDG class 8

ICAO class/division 8

ADN class 8

Transport labels



14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ICAO packing group III

ADN packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

IMDG Code segregation group 8. Hypochlorites

EmS F-A, S-B

ADR transport category 3

Emergency Action Code 2X

Hazard Identification Number (ADR/RID) 80

Tunnel restriction code (E)

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

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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations	The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended). The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). EH40/2005 Workplace exposure limits.
EU legislation	Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments. Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 453/2010 of 20 May 2010. Commission Regulation (EU) No 2015/830 of 28 May 2015.
Guidance	COSHH Essentials. ECHA Guidance on the Application of the CLP Criteria. ECHA Guidance on the compilation of safety data sheets.

15.2. Chemical safety assessment

A Chemical Safety Assessment (CSA) has been completed for Sodium hypochlorite.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	DNEL Derived No Effect Level PNEC Predicted No Effect Concentration STP Sewage Treatment Plant vPvB very Persistent, very Bio-accumulative
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision. New revision number applied to comply with Commission Regulation (EU) No 2015/830 Of 28 May 2015'
Revision date	08/01/2019
Revision	3
Supersedes date	26/07/2016
SDS number	20648

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Hazard statements in full

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.