

## Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

### SECTION 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Code:  
 Product name **CARTRIDGE CLEANER**

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

| Identified Uses                  | Industrial | Professional | Consumer |
|----------------------------------|------------|--------------|----------|
| DTERGENTE PER FILTRI PER PISCINE | -          | -            | ✓        |

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

**Supplier(Importer):** Wilton Bradley Europe B.V.  
**Address:** Barbara Strozzilaan 201, 1083HN, Amsterdam, Netherlands  
**Contact person** (E-mail): sales@wiltonbradley.co.uk  
**Telephone:** +44 (0)1626 835400  
**Fax:** +44 (0)1626 836656  
 Emergency telephone number  
 +44 (0)333 301 0644  
 Available outside office hours? YES  NO

#### 1.4. Emergency telephone number

For urgent inquiries refer to

999-

**Emergency Action: in the event of a medical**

**enquiryinvolving**

**this product , please contact your doctor or**

**local hospital accident and**

### SECTION 2. Hazards identification

#### 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

|                                |      |  |
|--------------------------------|------|--|
| Skin corrosion, category 1A    | H314 | Causes severe skin burns and eye damage. |
| Serious eye damage, category 1 | H318 | Causes serious eye damage.               |

#### 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



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## SECTION 2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:  
**H314** Causes severe skin burns and eye damage.

Precautionary statements:

**P501** Dispose of contents / container to . . .  
**P102** Keep out of reach of children.  
**P260** Do not breathe dust / fume / gas / mist / vapours / spray.  
**P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**P301+P330+P331** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
**P303+P361+P353** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

**Contains:** SODIUM HYDROXIDE  
POTASSIUM HYDROXIDE  
(1-Hydroxyethylidene)-1,1-diphosphonic acid  
Etilendiamminotetraacetato di sodio

Ingredients according to Regulation (EC) No. 648/2004

30% and more EDTA (ethylenediaminetetraacetic acid) sodium salt

### 2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

## SECTION 3. Composition/information on ingredients

### 3.2. Mixtures

Contains:

| Identification                                     | x = Conc. %           | Classification 1272/2008 (CLP) |
|--|-----------------------|--------------------------------|
| <b>POTASSIUM HYDROXIDE</b>                         |                       |                                |
| CAS  | 1310-58-3             | $7 \leq x < 9$                 |
| EC   | 215-181-3             |                                |
| INDEX  | 019-002-00-8          |                                |
| Reg. no.   | 01-2119487136-33-XXXX |                                |
| <b>(1-Hydroxyethylidene)-1,1-diphosphonic acid</b> |                       |                                |
| CAS  | 2809-21-4             | $7 \leq x < 9$                 |
| EC   | 220-552-8             |                                |
| INDEX  |                       |                                |
| Reg. no.   | 01-2119510391-53-XXXX |                                |
| <b>Etilendiamminotetraacetato di sodio</b>         |                       |                                |
| CAS  | 64-02-8               | $5 \leq x < 7$                 |
| EC   | 200-573-9             |                                |
| INDEX  | 607-428-00-2          |                                |
| Reg. no.   | 01-2119486762-27-XXXX |                                |
| <b>SODIUM HYDROXIDE</b>                            |                       |                                |
| CAS  | 1310-73-2             | $0,3 \leq x < 0,4$             |
| EC   | 215-185-5             |                                |
| INDEX  | 011-002-00-6          |                                |
| Reg. no.   | 01-2119457892-27-XXXX |                                |

The full wording of hazard (H) phrases is given in section 16 of the sheet.

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

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## SECTION 4. First aid measures ... / >>

**SKIN:** Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.  
**INGESTION:** Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.  
**INHALATION:** Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

## SECTION 5. Firefighting measures

### 5.1. Extinguishing media

#### SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

#### UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

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

#### HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

### 5.3. Advice for firefighters

#### GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

## SECTION 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

### 6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

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

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

### 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

## SECTION 7. Handling and storage

### 7.1. Precautions for safe handling

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

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## SECTION 7. Handling and storage ... / >>

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

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

### 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Regulatory References:

|     |                |  |
|-----|----------------|--|
| ESP | España         | LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)             |
| FRA | France         | Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS |
| GBR | United Kingdom | EH40/2005 Workplace exposure limits (Third edition, published 2018)                        |
|     | TLV-ACGIH      | ACGIH 2019   |

#### (1-Hydroxyethylidene)-1,1-diphosphonic acid

##### Predicted no-effect concentration - PNEC

|  |     |       |
|--|-----|-------|
| Normal value in fresh water                  | 136 | mg/l  |
| Normal value in marine water                 | 136 | mg/l  |
| Normal value for fresh water sediment        | 59  | mg/kg |
| Normal value for marine water sediment       | 59  | mg/kg |
| Normal value for the terrestrial compartment | 96  | mg/kg |

##### Health - Derived no-effect level - DNEL / DMEL

| Route of exposure | Effects on consumers |                         |               |                    | Effects on workers |                         |               |                         |
|-------------------|----------------------|-------------------------|---------------|--------------------|--------------------|-------------------------|---------------|-------------------------|
|                   | Acute local          | Acute systemic          | Chronic local | Chronic systemic   | Acute local        | Acute systemic          | Chronic local | Chronic systemic        |
| Oral              |                      | 6,5<br>mg/kg/peso/<br>g |               | 13<br>mg/kg/peso/g |                    | 13<br>mg/kg/p<br>eso/gg |               |                         |
| Skin              |                      |                         |               |                    |                    |                         |               | 13<br>mg/kg/pes<br>o/gg |

#### Etilendiamminotetraacetato di sodio

##### Predicted no-effect concentration - PNEC

|  |       |       |
|--|-------|-------|
| Normal value in fresh water                  | 2,86  | mg/l  |
| Normal value in marine water                 | 0,286 | mg/l  |
| Normal value for water, intermittent release | 1,56  | mg/l  |
| Normal value of STP microorganisms           | 55,94 | mg/l  |
| Normal value for the terrestrial compartment | 0,937 | mg/kg |

##### Health - Derived no-effect level - DNEL / DMEL

| Route of exposure | Effects on consumers |                |               |                  | Effects on workers |                |               |                  |
|-------------------|----------------------|----------------|---------------|------------------|--------------------|----------------|---------------|------------------|
|                   | Acute local          | Acute systemic | Chronic local | Chronic systemic | Acute local        | Acute systemic | Chronic local | Chronic systemic |
| Inhalation        |                      |                |               |                  |                    |                |               | 1,5<br>mg/m3     |

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## SECTION 8. Exposure controls/personal protection ... / >>

### SODIUM HYDROXIDE

#### Threshold Limit Value

| Type      | Country | TWA/8h |     | STEL/15min |     | Remarks / Observations |  |  |
|-----------|---------|--------|-----|------------|-----|------------------------|--|--|
|           |         | mg/m3  | ppm | mg/m3      | ppm |                        |  |  |
| VLA       | ESP     |        |     | 2          |     |                        |  |  |
| VLEP      | FRA     | 2      |     |            |     |                        |  |  |
| WEL       | GBR     |        |     | 2          |     |                        |  |  |
| TLV-ACGIH |         |        |     | 2 (C)      |     |                        |  |  |

#### Health - Derived no-effect level - DNEL / DMEL

| Route of exposure | Effects on consumers |          | Effects on workers |          |       |          |         |          |
|-------------------|----------------------|----------|--------------------|----------|-------|----------|---------|----------|
|                   | Acute                | Acute    | Chronic            | Chronic  | Acute | Acute    | Chronic | Chronic  |
|                   | local                | systemic | local              | systemic | local | systemic | local   | systemic |
| Inhalation        |                      |          |                    | 1        |       |          |         | 1        |
|                   |                      |          |                    | mg/m3    |       |          |         | mg/m3    |

#### Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.  
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

### 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

#### HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

#### SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

#### EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

#### ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| Properties                       | Value         | Information |
|----------------------------------|---------------|-------------|
| Appearance                       | liquid        |             |
| Colour                           | colourless    |             |
| Odour                            | odourless     |             |
| Odour threshold                  | Not available |             |
| pH                               | 13,5          |             |
| Melting point / freezing point   | Not available |             |
| Initial boiling point            | Not available |             |
| Boiling range                    | Not available |             |
| Flash point                      | > 60 °C       |             |
| Evaporation Rate                 | Not available |             |
| Flammability of solids and gases | Not available |             |
| Lower inflammability limit       | Not available |             |

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## SECTION 9. Physical and chemical properties ... / >>

|  |               |
|--|---------------|
| Upper inflammability limit             | Not available |
| Lower explosive limit                  | Not available |
| Upper explosive limit                  | Not available |
| Vapour pressure                        | Not available |
| Vapour density                         | Not available |
| Relative density                       | 1,17          |
| Solubility                             | miscible      |
| Partition coefficient: n-octanol/water | Not available |
| Auto-ignition temperature              | Not available |
| Decomposition temperature              | Not available |
| Viscosity                              | Not available |
| Explosive properties                   | Non esplosivo |
| Oxidising properties                   | Non ossidante |

### 9.2. Other information

|                              |         |
|------------------------------|---------|
| Total solids (250°C / 482°F) | 15,03 % |
|------------------------------|---------|

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

#### POTASSIUM HYDROXIDE

May develop: heat. May corrode: metals.  
(1-Hydroxyethylidene)-1,1-diphosphonic acid  
Si decompona temperatura superiori a 200°C/392°F

### 10.2. Chemical stability

The product is stable in normal conditions of use and storage.

#### POTASSIUM HYDROXIDE

Stable in normal conditions of use and storage.

### 10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

#### POTASSIUM HYDROXIDE

Develops hydrogen on contact with: metals. Develops heat on contact with: strong acids. Reacts violently with: water.

### 10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

#### POTASSIUM HYDROXIDE

Avoid exposure to: sources of heat. Keep away from: oxidising agents, acids, flammable substances, halogens, organic substances. Keep away from: lead, aluminium, copper, tin, sulphur, bronze. Absorbs atmospheric CO<sub>2</sub>.  
Unstable on exposure to air. Freezing.

#### SODIUM HYDROXIDE

SODIUM HYDROXIDE: exposure to the air, moisture and sources of heat.

### 10.5. Incompatible materials

(1-Hydroxyethylidene)-1,1-diphosphonic acid  
Incompatibile con: forti ossidanti, basi forti.

#### SODIUM HYDROXIDE

SODIUM HYDROXIDE: strong acids, ammonia, zinc, lead, aluminium, water and flammable liquids.

### 10.6. Hazardous decomposition products

#### POTASSIUM HYDROXIDE

May develop: flammable gases.  
(1-Hydroxyethylidene)-1,1-diphosphonic acid  
Può sviluppare: fosfina, acido fosforico, ossidi di fosforo.

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## SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.  
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

### 11.1. Information on toxicological effects

#### Metabolism, toxicokinetics, mechanism of action and other information

Information not available

#### Information on likely routes of exposure

Information not available

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

#### Interactive effects

Information not available

#### ACUTE TOXICITY

|                                  |   |
|----------------------------------|---|
| ATE (Inhalation) of the mixture: | > 20 mg/l                                 |
| ATE (Oral) of the mixture:       | >2000 mg/kg                               |
| ATE (Dermal) of the mixture:     | Not classified (no significant component) |

|                                     |                  |
|-------------------------------------|------------------|
| Etilendiamminotetraacetato di sodio |                  |
| LD50 (Oral)                         | 1780 mg/kg Ratto |
| LC50 (Inhalation)                   | 3 mg/l/4h Ratto  |

|                  |                |
|------------------|----------------|
| SODIUM HYDROXIDE |                |
| LD50 (Oral)      | 1350 mg/kg Rat |
| LD50 (Dermal)    | 1350 mg/kg Rat |

|                     |               |
|---------------------|---------------|
| POTASSIUM HYDROXIDE |               |
| LD50 (Oral)         | 333 mg/kg Rat |

#### SKIN CORROSION / IRRITATION

Corrosive for the skin  
Classification according to the experimental Ph value

#### SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

#### RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

#### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

#### CARCINOGENICITY

Does not meet the classification criteria for this hazard class

#### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

# CARTRIDGE CLEANER

## SECTION 11. Toxicological information ... / >>

### STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

### STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

### ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

## SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

### 12.1. Toxicity

|  |                |
|--|----------------|
| (1-Hydroxyethylidene)-1,1-diphosphonic acid<br>LC50 - for Fish | 368 mg/l/96h   |
| Etilendiamminotetraacetato di sodio<br>LC50 - for Fish         | > 100 mg/l/96h |
| EC50 - for Algae / Aquatic Plants                              | > 100 mg/l/72h |
| SODIUM HYDROXIDE<br>LC50 - for Fish                            | 189 mg/l/96h   |
| EC50 - for Crustacea   | 100 mg/l/48h   |
| EC50 - for Algae / Aquatic Plants                              | 179 mg/l/72h   |

### 12.2. Persistence and degradability

|  |              |
|--|--------------|
| POTASSIUM HYDROXIDE<br>Solubility in water | > 10000 mg/l |
| Degradability: information not available   |              |

### 12.3. Bioaccumulative potential

Information not available

### 12.4. Mobility in soil

Information not available

### 12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

### 12.6. Other adverse effects

Information not available

## SECTION 13. Disposal considerations

### 13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

#### CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.



# CARTRIDGE CLEANER

## SECTION 14. Transport information

### 14.1. UN number

ADR / RID, IMDG, IATA: 3266

### 14.2. UN proper shipping name

ADR / RID: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S  
IMDG: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S  
IATA: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S

### 14.3. Transport hazard class(es)

ADR / RID: Class: 8 Label: 8



IMDG: Class: 8 Label: 8



IATA: Class: 8 Label: 8



### 14.4. Packing group

ADR / RID, IMDG, IATA: II

### 14.5. Environmental hazards

ADR / RID: NO  
IMDG: NO  
IATA: NO

### 14.6. Special precautions for user

ADR / RID: HIN - Kemler: 80 Limited Quantities: 1 L Tunnel restriction code: 2(E)  
Special Provision: -  
IMDG: EMS: F-A, S-B Limited Quantities: 1 L  
IATA:

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

Information not relevant

## SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EC: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product  
Point 3

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage  $\geq$  than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

# CARTRIDGE CLEANER

## SECTION 15. Regulatory information ... / >>

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

Regulation (EC) No. 648/2004

Ingredients according to Regulation (EC) No. 648/2004

The surfactant(s) contained in this preparation 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.

### 15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

## SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

|                      |  |
|----------------------|--|
| <b>Met. Corr. 1</b>  | Substance or mixture corrosive to metals, category 1               |
| <b>Acute Tox. 4</b>  | Acute toxicity, category 4   |
| <b>STOT RE 2</b>     | Specific target organ toxicity - repeated exposure, category 2     |
| <b>Skin Corr. 1A</b> | Skin corrosion, category 1A  |
| <b>Eye Dam. 1</b>    | Serious eye damage, category 1                                     |
| <b>H290</b>          | May be corrosive to metals.  |
| <b>H302</b>          | Harmful if swallowed.  |
| <b>H332</b>          | Harmful if inhaled.  |
| <b>H373</b>          | May cause damage to organs through prolonged or repeated exposure. |
| <b>H314</b>          | Causes severe skin burns and eye damage.                           |
| <b>H318</b>          | Causes serious eye damage.   |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

# CARTRIDGE CLEANER

GENERAL BIBLIOGRAPHY1. Regulation (EC) 1907/2006 (REACH) of the European Parliament

2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
16. Regulation (EU) 2019/521 (XII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

#### Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

#### CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.