

Revision date: 27.02.2017

Version ENG: 2.0

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier:** DG Separator Cleaner**1.2 Relevant identified uses of the substance or mixture and uses advised against:**

Identified use: Acidic liquid product for cleaning separators discs and bowls

Uses advised against: Not identified

1.3 Details of the supplier of the safety data sheet:

Supplier: Duo Ghibli
ul. Światowida 6
71-726 Szczecin
Phone number: +48 606 362 590

E-mail address of the person responsible for the material safety data sheet: biuro@dGPC.pl

1.4 Emergency telephone number: 81 535 22 22 between 8 a.m. and 4 p.m.
112 (generally available emergency number), 998 (fire brigade), 999 (ambulance);

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 EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

Skin corrosion, hazard category 1B

H314

67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols: C

R phrases: 35 - 37

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

2.2 Label elements:

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

2.2 Hazard symbols and warnings:**Signal words**

Danger

Contains

phosphoric acid, 2-(2-butoxyethoxy)ethanol, oxalic acid

Hazard statements

H314 Causes severe skin burns and eye damage.

H290 May be corrosive to metals

Precaution 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): 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/doctor/

P363 Wash contaminated clothing before reuse.

Contain:

Hydrochloric acid (EC: 231-595-7)

Alcohols, C9-11, ethoxylated (CAS: 68439-46-3)

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According to Regulation (EC) No 648/2004

Contains: <5% nonionic surfactants, anionic surfactants

2.3. Other hazards:

Odour: Liquid is odourless

Physical state: Liquid, colourless or pale yellow, soluble in water

Contact with eyes: Can cause damage to the eyes

Contact with skin: Prolonged skin contact may cause chemical burns

Inhalation: Vapours or aerosols may cause irritation respiratory tract and can cause damage to the lungs

Ingestion: The ingestion of significant quantities cause damage to digestive system

SECTION 3: Composition/information on ingredients**3.1 Mixtures:**

Hazardous ingredients:

Product identifier	Content %	CLP classification	
		Hazard class and category codes	Codes of phrases describing the natures of hazard
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0 Index number: 603-014-00-0 <u>REACH number</u> : the substance is subject to the transient period regulations	1 - 2	Acute Tox. 4 Eye Irrit. 2 Skin Irrit. 2	H332 H312 H302 H319 H315
Phosphoric acid CAS: 7664-38-2 EC: 231-633-2 Index number: 607-620-00-6 <u>REACH number</u> : the substance is subject to the transient period regulations	10 - 20	Skin Corr. 1B Met.Corr. 1	H314 H290
Hydrochloric acid CAS No.: - EC No.: 231-595-7 Index No.: 017-002-01-X <u>REACH No.</u> : -	2,5 - 5	Skin Corr. 1B STOT SE 3	H314 H335
Alcohols, C9-11, ethoxylated CAS No.: 68439-46-3 EC No.: - Index No.: - <u>REACH No.</u> : -	1 - 2	Acute Tox.4 Eye Dam.1	H302 H318

SECTION 4: First aid measures**4.1 Description of first aid measures****Following skin contact:**

Remove contaminated clothing. Use soap to clean contaminated skin. Rinse the skin immediately using plenty of water. If irritation or erythema occurs, seek medical assistance.

Following eye contact:

Promptly wash eyes with plenty of water (for approximately 15 min) with your eyes open wide. Avoid strong water jet, as it might damage the cornea. Seek medical attention. If possible, continue washing eyes with fresh water during transport to the doctor.

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Following inhalation:

In case of vertigo or nausea, move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

Following ingestion:

Do not induce vomiting. Rinse mouth thoroughly. Drink plenty of water or milk if victim is fully conscious. Get medical attention if any discomfort continues.

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

Respiratory system: Inhalation of concentrated vapours may lead to mucosa irritation of the nose, throat and further parts of the respiratory system, cough, dyspnea, breathing difficulty.

Gastrointestinal tract: Causes burns in abdominal mucus, with the risk of perforation, abdominal pain, cramps, nausea, vomiting, diarrhea, general sensation of feeling unwell, headache and dizziness - symptoms of food poisoning.

Eye contact: Splashes causes pain and burns. Risk of permanent visual impairment.

Skin contact: Product may cause chemical burns of the skin and mucous membranes with blisters and sores.

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

A decision about any future medical intervention should be made by a doctor once he/she has assessed the exposed person's condition.

SECTION 5: Fire-fighting measures**5.1 Extinguishing media:****Suitable extinguishing media:**

Alcohol resistant foam or dry extinguishing (A,B,C) powders, CO₂, sand or soil, water mist. Use methods appropriate for the surrounding fire.

Unsuitable extinguishing media:

Strong water jet.

5.2 Special hazards arising from the substance or mixture:

Noxious fumes are produced under fire conditions (e.g. carbon oxides) and other toxic vapours. Their inhalation may be hazardous to health. Protect personnel from exposure.

5.3 Advice for firefighters:

The product is not flammable.

Use a dispersed water jet to keep fire exposed containers cool and If safe to do so, remove containers from path of fire. In case of fire in confined spaces, wear special protective clothing and self-contained breathing apparatus.

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:

Prevent spreading substance. Keep product from entering drains and waterways.

6.3 Methods and material for containment and cleaning up:

Avoid dispersal of spilled material, collect and soak up with inert absorbent material (e.g. sand, vermiculite, silica gel, universal binder). Transfer the contaminated material into properly labelled containers to be utilised in compliance with the requirements of environmental protection legislation.

6.4 Reference to other sections

For product waste handling and disposal – go to Section 13.

For personal protective measures – go to Section 8.

SECTION 7: Handling and storage**7.1 Precautions for safe handling:**

Avoid eye contact. Avoid prolonged or repeated contact with skin. Avoid spilling and splashing solution. Avoid inhaling the product vapours. Avoid heat sources. Avoid contact with open fire and hot surfaces. Work in line with the general occupational safety and hygiene regulations: do not eat, drink and smoke in work areas, wash hands after use, remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities:

The product is not flammable. Store in a cool (the recommended temperature of storage should not exceed 30°C), dry, well-ventilated store room, in tightly sealed properly labeled original container. Avoid heat sources and direct

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sunlight. Avoid contact with open fire and hot surfaces. Do not store in tanks/containers made of material (eg aluminum) that may be attacked by acidic substances. Keep in a frost-free place.

7.3 Specific end use(s): Acidic liquid product for cleaning separators discs and bowls.

SECTION 8: Exposure controls/personal protection

8.1 CONTROL PARAMETERS:

Regulatory References:

United Kingdom EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended).

ÉIRE Code of Practice Chemical Agent Regulations 2011.

OEL EU Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/ EC.

phosphoric acid

TLV (TWA) 1 mg/m³ ()

hydrogen chloride

5mg/m³ (8h); 10mg/m³ (15min.)

2-(2-butoxyethoxy)ethanol

TLV (TWA) 67,5 mg/m³ (Denmark, UK, EU)

TLV (TWA) 50 mg/m³ (Netherlands)

TLV (TWA) 68 mg/m³ (Norway)

8.2 Exposure controls:

Appropriate engineering controls: general ventilation of the storage room is recommended.

Individual protection measures, such as personal protective equipment:



Eye/face protection:

Use safety glasses or a safety face shield consistent with EN 166. Eye washes must be available.

Skin protection:

Hand protection:

Wear appropriate chemical-protective gloves, made of acrylonitrile-butadiene rubber latex, natural rubber or PVC, in accordance with EN-PN 374:2005.

Glove material:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. The resistance of glove material can only be specified following tests. A precise breakthrough time for any gloves should be provided by the manufacturer.

Other:

Wear suitable protective clothes (in accordance with EN 344) – which should be washed regularly.

Respiratory protection:

Avoid inhaling the product vapours.

Thermal hazards:

Not applicable.

Environmental exposure controls

Prevent dispersal of the product in the environment. Keep product from entering drains and waterways.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Liquid
Colour	colourless

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Odour	Characteristic
Odour threshold	Not identified
pH	1,1
Melting point / freezing point	-4 °C
Initial boiling point and boiling range	90 °C
Flash point	Not identified
Burning temperature	Not identified
Evaporation rate	Not identified
Flammability (solid, gas)	Not identified
Lower flammability or explosive limits	Not identified
Upper flammability or explosive limits	Not identified
Vapour pressure at 20°C	Not identified
Relative vapour density	Not identified
Density at 20 °C	1.15 g/cm ³
Solubility(ies)	Completely soluble in water
Partition coefficient: n-octanol/water	Not identified
Auto-ignition temperature	It does not self-ignite
Decomposition temperature	Not identified
Dynamic viscosity at 22°C	2 mPa.s
Kinematic viscosity	Not identified
Explosive properties	Not identified
Oxidising properties	Not identified

9.2 Other information:

No additional test data.

SECTION 10: Stability and Reactivity
10.1 Reactivity:

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

10.2 Chemical stability:

The product is stable under normal conditions and temperatures of use, storage, and transportation.

10.3 Possibility of hazardous reactions:

No hazardous reactions are foreseeable in normal conditions of use and storage. Risk of explosion on contact with alkaline metals, aluminium powder, hydrogen cyanide, alcohol.

10.4 Conditions to avoid:

Avoid high temperature, direct sunlight, hot surfaces and contact with open fire.

10.5 Incompatible materials :

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Alkalis, organic substances, strong oxidants.

10.6 Hazardous decomposition products:

Toxic decomposition products are produced in high temperature.

SECTION 11: Toxicological information**11.1 Information on toxicological effects:**

(a) acute toxicity: none

2-(2-butoxyethoxy)ethanol:

LD50 (oral, rat): 6560mg/kg

LD50 (dermal, rabbit): 4120mg/kg

Phosphoric acid

LD50: (dermal, rat) 2740 mg/kg

LD50: (rat, oral) 2600 mg/kg

Oxalic acid dihydrate

LD50: (oral, rabbit) 375 mg/kg

LD50: (rat) 20.000 mg/kg

Alcohols, C9-11, ethoxylated

LD50 (oral, rat): 200 - 2000mg/kg

(b) skin corrosion/irritation: Causes skin irritation.

(c) serious eye damage/irritation: Causes serious eye damage.

(d) respiratory or skin sensitization: none

(e) germ cell mutagenicity: none

(f) carcinogenicity: none

(g) reproductive toxicity: none

(h) STOT-single exposure: May cause respiratory irritation.

(i) STOT-repeated exposure: none

(j) aspiration hazard: none

Information on likely routes of exposure:

Skin contact: Causes skin irritation.

Eye contact: Causes serious eye damage.

Respiratory: May cause respiratory irritation, cough, shortness of breath, difficulty breathing.

Gastrointestinal tract: Ingestion may cause irritation of the mucous membranes of mouth, gastrointestinal tract, abdominal pain, stomach cramps, nausea, vomiting, diarrhea, headaches and dizziness - symptoms of food poisoning

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

Not applicable

Interactive effects:

Not applicable.

SECTION 12: Ecological information**12.1 Toxicity:**

There are no ecotoxicological data on the product, only on the ingredients.

Acute fish toxicity

LC50(96h)(Phosphoric Acid): 138 mg/l (Gambusia affinis)

LC50(96h)(Phosphoric Acid): 3 to 3.25 mg/l (Lepomis macrochirus)

Alcohols, C9-11, ethoxylated

LC50 >1-<= 10 mg/l. (ISO 7346/2 semi-static)

Bacteria: EC0 >100mg/l. (DIN 38412, Part 27 (ROBRA Test, OECD 209

Acute algae toxicity

EC50(72h)(Phosphoric acid): >100 mg/l (Desmodesmus subspicatus)

EC50(72 h)(C10 alcohol alkoxilate): 10 - 100 mg/l (Scenedesmus subspicatus)

Acute crustacean toxicity

EC50(48h)(Phosphoric acid): >100 mg/l (Daphnia magna)

EC50(48h)(Oxalic acid dihydrate): 137 mg/l (Daphnia magna)

12.2 Persistence and degradability:

The surfactant(s) used in this preparation comply(ies) with the biodegradability criteria as laid down in Regulation (EC) No 648/2004 on detergents.

2-(2-butoxyethoxy)ethanol:Alcohols, C9-11, ethoxylated

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The primary degradation: Biodegrade at least 90%.

The ultimate biodegradation:

Very quickly and easily degrades: the tests made easy degradation, all substances in the product received value >60% BSB/CSB or the formation of CO₂, or a >70% reduction in DOC.

It consists in the maximum values set for the term "easy biodegradation" (meth. OECD 301).

The product readily biodegradable. BOD 28 = 92% of ThOD

12.3 Bioaccumulative potential

2-(2-butoxyethoxy)ethanol:

Do not assume bioaccumulation potential of the product. Provided bioconcentration factor = 4

12.4 Mobility in soil:

No information available.

12.5 Results of PBT and vPvB assessment:

The product and its agents are not expected to be PBT and/or vPvB.

12.6 Other adverse effects:

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal of waste should be addressed by specialized companies, the manner of waste disposal to be agreed with the competent department of environmental terrain. The residue was stored in their original containers. Dispose of in accordance with applicable regulations.

Empty containers should be disposed of in accordance with applicable regulations or to provide to the appropriate landfill.

EU REGULATIONS

Directive 75/442/EEC on waste, Council Directive 91/689/EEC of 12 December 1991 on hazardous waste, Commission Decision of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste

SECTION 14: Transport Information

These goods must be transported by vehicles authorized to the carriage of dangerous goods according to the provisions set out in the current edition of the Code of International Carriage of Dangerous Goods by Road (ADR) and in all the applicable national regulations. These goods must be packed in their original packagings or in packagings made of materials resistant to their content and not reacting dangerously with it. People loading and unloading dangerous goods must be trained on all the risks deriving from these substances and on all actions that must be taken in case of emergency situations.



14.1

UN number: 1805

Name PHOSPHORIC ACID SOLUTION

UN proper shipping name: PHOSPHORIC ACID

Transport hazard class(es): 8

Packing group: III

Environmental hazards: None.

Special precautions for user: No data available.

14.2 Environmental hazards - On available data, substance is not harmful to the environment

14.3 Special precautions for user - No special precautions are required for this product

14.4 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code - Not applicable

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14.5 Road/Rail (ADR/RID):

ADR UN No.: UN1805

Proper Shipping Name: PHOSPHORIC ACID

ADR Hazard Class: 8

ADR Packing Group: III

ADR subrisk: N/A

ADR Flashpoint: N/A

14.6 Sea (IMDG) - IMDG UN No.: UN1805

Proper Shipping Name: Hydrochloric acid

IMDG Hazard Class: 8 - IMDG Pack Group.: III

IMDG EmS: F-A, S-B

IMDG subrisk: N/A

IMDG Flashpoint: N/A

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

1. 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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
2. COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
3. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).
4. Commission Directive 2006/8/EC of 23 January 2006 amending, for the purposes of their adaptation to technical progress, Annexes II, III and V to Directive 1999/45/EC of the European Parliament and of the Council concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations (Text with EEA relevance).

15.2 Chemical safety assessment: No chemical safety assessments for the mixture.

SECTION 16: Other information**Abbreviations and acronyms, list of hazard statements used in the safety data sheet:****H302** – Harmful if swallowed**H314** – Causes severe skin burns and eye damage**H315** – Causes skin irritation**H318** – Causes serious eye damage**H319** – Causes serious eye irritation**H335** – May cause respiratory irritation.**H412** – Harmful to aquatic life with long lasting effects**Acute Tox.4** – Acute toxicity cat. 4**Skin Corr. 1B** – Skin corrosion cat. 1B**Skin Irrit.2** – Skin irritation cat. 2**Eye Dam.1** – Serious eye damage cat. 1**Eye Irrit.2** – Eye irritation cat. 2**STOT SE 3** – Specific target organ toxicity — single exposure cat. 3**Aquatic Chronic 3** – Hazardous to the aquatic environment cat. 3**LC50** – Lethal concentration, 50 percent**LD50** – Lethal dose, 50 percent**EC0** – Median effective concentration**PBT** – Persistent, Bioaccumulative and Toxic**vPvB** – very Persistent and very Bioaccumulative**ADR** – European Agreement concerning the International Carriage of Dangerous Goods by Road

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RID – Regulation Concerning the International Transport of Dangerous Goods by Rail

IMDG – International Maritime Code for Dangerous Goods

IATA – International Air Transport Association

Training:

This product can be used by workers who have been thoroughly trained in the method of use of this product, they have been informed about the hazardous properties of the product and of the conditions of safe use of this product.

Method of classification: calculation method

RESOURCES

Annex to Regulation (EU) 2015/830.

Current legislation (Section 15).

Information Agency for Chemical Substances.

The information contained herein should be considered only as an aid for the safe use of DG Separator Cleaner.

Since the conditions of storage, transport and use are beyond our control, can not constitute a guarantee in the legal sense. In any case, you must observe the laws and any third party rights. The document does not estimate the risks in the workplace. Product should not be used for purposes other than those specified in Section 1 without first consulting with **Duo Ghibli**.