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Version ENG: 3.0

Safety Data Sheet according to Regulation (EC) No 1907/2006 from 18.12.2006 – REACH and 453/2010 from 20.05.2010

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier: DG Freezer Cleaner

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

Identified use: Water based cleaning agent and degreaser.

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
Poland
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

- Council Directive 1999/45/EEC Classification, packing and labelling of dangerous preparations.
- This Safety Data Sheet is provided in compliance with The Dangerous Substances Directive (67/548/EEC)
- Regulations 1272/2008/EEC. Classification, labeling and packing of dangerous substances and preparations
- Eye Dam. 1 - Causes serious eye damage (H318).

Contains: potassium hydroxide, fatty alcohol ethoxylates, 2-butoxyethanol

2.2 Label elements



- Signal Word: Danger

- Eye Dam. 1

Hazard phrases

H318 Causes serious eye damage.

Precautionary Phrases

P280 wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337+P313 If eye irritation persists: Get medical advice/attention

2.3 Other hazards:

No other hazards.

No data on whether or not the product complies with PBT or vPvB regulations according to Annex XIII of REACH. Appropriate tests have not been conducted.

SECTION 3: Composition/information on ingredients

3.1 Substances:

Not applicable.

3.2 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	2- 4	Acute Tox. 4 Eye Irrit. 2 Skin Irrit. 2	H332 H312 H302 H319 H315
Fatty alcohol ethoxylate CAS: 160875-66-1 EC: polymer Index number: Not applicable <u>REACH number</u> : the substance is subject to the transient period regulations	2 - 4	Acute Tox.4 Eye Dam.1	H302 H318
Alkylglucosid CAS: 161074-93-7 EC: 500-529-1 Index number: - <u>REACH number</u> : the substance is subject to the transient period regulations	2,5-5	Eye Dam.1	H318
Potassium hydroxide, caustic potash CAS: 1310-58-3 EC: 215-181-3 Index number: 019-002-00-8 <u>REACH number</u> : the substance is subject to the transient period regulations	<0,5	Skin Corr. 1A Acute Tox.4	H290 H314 H302

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:

Remove contact lenses, if present and easy to do. 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.

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. Get medical attention if any discomfort continues.

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

Can cause damage to the eyes

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: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Not flammable. 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.

5.3 Advice for firefighters:

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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

For non-emergency personnel: notification should be provided to appropriate emergency services. All the persons not taking part in emergency measures should be evacuated from the danger area.

For emergency responders: Provide sufficient ventilation. Use suitable personal protection means. Do not inhale concentrated vapours of the product.

6.2 Environmental precautions: Prevent spreading substance. Keep product from entering drains and waterways. Local authorities should be advised if significant spillages cannot be contained.

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:

To be used in well ventilated rooms. 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. Eyewash bottles should be available.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a cool (the recommended temperature of storage should not exceed 25°C), well-ventilated store room, in tightly sealed properly labeled original container. Avoid heat sources and direct sunlight. Avoid contact with open fire and hot surfaces. Protect from frost.

7.3 Specific end use(s): A Water based cleaning agent and degreaser.

SECTION 8: Exposure controls/personal protection

8.1 CONTROL PARAMETERS:

Occupational exposure limits according to Regulation of the Minister of Employment and Social Policy on maximum permissible concentration and intensity of harmful factors in work environment (Journal of Laws, No 217, item 1883, as amended).

Ingredients for whom the limits are legally binding:

Name / type of a compound	MAC	STEL	CL
	mg/m ³		
Potassium hydroxide	0.5	1	-
2-butoxyethanol	98	200	-

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.

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	Green
Odour	Specific for the product
pH	11.5
Melting point / freezing point	Not identified
Initial boiling point and boiling range	Not identified
Boiling point	>100 °C
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	1.10 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

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Dynamic viscosity at 22°C	Not identified
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:**

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

10.2 Chemical stability:

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

10.3 Possibility of hazardous reactions:

It can undergo exothermic reactions with acids.

10.4 Conditions to avoid:

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

10.5 Incompatible materials :

Strong acids.

10.6 Hazardous decomposition products:

Toxic decomposition products (e.g. carbon oxides) are produced in high temperature.

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

a) Acute toxicity: none

potassium hydroxide:

LD50 (oral, rat) 273 mg/kg

fatty alcohol ethoxylate

LD50 (oral, rat) 300- 2000 mg/kg

2-butoxyethanol

LD (skin)-490 mg/kg, (oral)-560 mg/kg

11.2 Contact with eyes

May cause severe irritation

Can cause damage to the eyes

11.3 Contact with skin

Prolonged skin contact will result in defatting of the skin, leading to irritation, and in some cases, dermatitis

11.4 Ingestion

No effects for small dosage. Large dose effects not known

May cause gastro-intestinal disturbances

11.5 Inhalation

In cases of severe exposure, irritation may develop

SECTION 12: Ecological information

No thorough tests on the effect of the mixture on the environment have been conducted. The mixture does not contain ingredients classified as hazardous for the environment

12.1 Toxicity:

LC50 (fish) (Fatty alcohol ethoxylate) 1-10 mg/l (96 hr)

12.2 Persistence and degradability:

The components in this product are readily biodegradable.

12.3 Bioaccumulative potential:

Bioaccumulation of the components in this product is insignificant.

12.4 Mobility in soil:

Fully soluble in water.

12.5 Results of PBT and vPvB assessment:

Not a PBT according to REACH Annex XIII.

12.6 Other adverse effects:

No environmental damage are expected when the product is used and/ stored correctly.

SECTION 13: Disposal considerations**13.1 Waste treatment methods:**

Utilization of waste and disposable containers will be handed over to specialised companies and the methods of utilization should be discussed with the locally applicable environment department. Wastes should be stored in original containers. Empty containers should be utilised in compliance with the requirements of environmental protection legislation or transferred to a suitable landfill site.

Environment Minister Order of 27 September 2001 on Waste Catalogue (Journal of Laws No. 112, item 1206).

Directive of the Council 75/442/EEC on waste, Directive of the Council 91/689/EEC on hazardous waste, Decision of the Commission 2000/532/EC of 3rd May, 2000 providing a European List of Wastes, pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste (OJ L 226, 6.9.2000, p. 3).

13.2 Classification:

Not applicable

SECTION 14: Transport Information

14.1 UN number: Not applicable.

14.2. UN proper shipping name: Not applicable.

14.3 Transport hazard class(es): Not applicable.

14.4 Packing group: Not applicable.

14.5 Environmental hazards: Not Classified.

14.6 Special precautions for user: No data available.

14.7 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:**

1. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), as amended.
2. Commission Regulation (EU) No 453/2010 of 20 May 2010 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. Act of 25 February 2011 on chemical substances and their mixtures (Journal of Laws No 63, item 322).
4. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008, as amended.
5. Regulation of the Minister of Health of 20 April 2012 on labelling containers of hazardous substances and hazardous mixtures and other mixtures. (Journal of Laws 2012 No 0, item 445).
6. Regulation of the Minister of Health of 10 August 2012 on the criteria and classification of chemical substances and preparations (Journal of Laws 2012, No 1018).
7. Regulation of the Minister of Environment of 23 April 2004 on labelling patterns of containers (Journal of Laws, No 94, item 927).
8. Regulation of the Minister of Health of 11 June 2012 on the categories of hazardous substances and hazardous mixtures whose packaging is fitted with child resistant openings and tactile warning of danger (Journal of Laws of 2012, No 0, item 688).
9. Act of 14 December 2012 on waste (Journal of Laws of 2013, No 0, item 21).
10. Act of 11 May 2001 on packaging and package disposal (Journal of Laws No 63, item 638 as amended).
11. Regulation of the Minister of Environment of 27 September 2001 on waste catalogue (Journal of Laws, No 112, item 1206).
12. Council Directive 75/442/EEC on waste, Council Directive 91/689/EEC on hazardous waste, Commission Decision 2000/532/EC of 3 May 2000 providing a waste list, OJ Nr L 226/3 of 6 September 2000, as amended.
13. Act of 19 August 2011 on carriage of dangerous goods (Journal of Laws, No 227, item 1367).

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14. Government Statement of 23 March 2011 on the entry into force of amendments to Annexes A and B of the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), announced in Geneva on 30 September 1957 (Journal of Laws No. 110, item . 641).
15. Regulation of the Minister of Labour and Social Policy of 29 November 2002 on the highest permissible concentration and intensity of health threatening factors in the working environment (Journal of Laws of 2002, No 217, item 1833, as amended).
16. Regulation of the Minister of Health of 30 December 2004 on occupational health and safety in regard to chemical agents at the workplace (Journal of Laws of 2005, No 11, item 86, as amended).
17. Regulation of the Minister of Environment of 9 December 2003 on substances posing a particular threat to the environment (Journal of Laws No. 217, item. 2141).

15.2 Chemical Safety Assessment:

No chemical safety assessment is available for the mixture.

SECTION 16: Other information**H phrases:****H302** – Harmful if swallowed**H312** – Harmful in contact with skin**H332** - Harmful if inhaled**H314** – Causes severe skin burns and eye damage**H315** – Causes skin irritation**H318** - Causes serious eye damage**H319** – Causes serious eye irritation**Glossary/List of acronyms:****Acute Tox.4** – acute toxicity, category 4**Eye Irrit.2** – irritating to eyes, category 2**Skin Corr. 1A** – corrosive to skin, category 1A**Eye Dam.1** – causes serious eye damage, category 1**Skin Irrit.2** – irritating to skin, category 2

MAC – Maximum Acceptable Concentration

CL – Ceiling Exposure Limit

STEL – Short Term Exposure Limit

Trainings:

Prior to commencing work with the product, all the staff should be provided with a safety training on chemical agents in work environment. The personnel should be instructed and provided with data on occupational risk assessment at the work station with regard to chemical agents.

SAFETY DATA SHEET – DG Freezer Cleaner☐ Released on

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☐ Eng Version

2.0 of 20 February, 2016

Changes in this SDS have been introduced according to Annex I to (EU) Regulation 453/2010 of 20 May, 2010.

SOURCE MATERIALS

Annex I to (EU) Regulation 453/2010 of 20 May, 2010

All the legal regulations quoted and referred to in Section 15

Data provided by Poland's Bureau for Chemical Substances and Preparations.

DG Freezer Cleaner Safety Data Sheet

The information contained herein relates only to the specific material designated in the title. The information given in this SDS is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release of the product – DG Freezer Cleaner - and is not to be considered as a warranty or quality specification. At all times, you must comply with the statutory laws and the rights of any third party. *The SDS does not constitute an*

assessment of hazards in the work environment. The product should not be used for purposes other than those specified in Section 1 without first consulting **Duo Ghibli**.