


Ludwik - washing gel Color & Black

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:** Ludwik - washing gel Color & Black
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Product for cleaning clothes
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**
GRUPA INCO S.A.
ul. Wspólna 25
00-519 Warszawa - Mazowieckie - Polska
Phone.: +48 22 71 15 900
info.produkty@inco.pl
www.inco.pl
- 1.4 Emergency telephone number:** +48 22 7115900 (7.30-15.30)

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
CLP Regulation (EC) No 1272/2008:
Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412
Eye Irrit. 2: Eye irritation, Category 2, H319
- 2.2 Label elements:**
CLP Regulation (EC) No 1272/2008:
Warning

Hazard statements:
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects
Eye Irrit. 2: H319 - Causes serious eye irritation
Precautionary statements:
P101: If medical advice is needed, have product container or label at hand
P102: Keep out of reach of children
P264: Wash the hands thoroughly after handling
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
P501: Dispose of contents/container to hazardous waste
- 2.3 Other hazards:**
Product fails to meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS **





- 3.1 Substance:**
Non-applicable
- 3.2 Mixture:**
Chemical description: Mixture composed of anionic and non-ionic surfactants
Components:
In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

** Changes with regards to the previous version

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS ** (continued)

Identification	Chemical name/Classification	Concentration
CAS: 68891-38-3 EC: 500-234-8 Index: Non-applicable REACH 01-2119488639-16-XXX v	Alcohols, C12-14(even numbered), ethoxylated < 2.5 EO, sulfates, sodium salts ¹ Regulation 1272/2008 Aquatic Chronic 3: H412; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger	Self-classified  5 - <8 %
CAS: 68439-50-9 EC: Non-applicable Index: Non-applicable REACH 01-2119487984-16-XXX v	Alcohols, C12-14, ethoxylated (7 EO) ¹ Regulation 1272/2008 Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger	Self-classified  5 - <8 %
CAS: Non-applicable EC: 931-329-6 Index: Non-applicable REACH 01-2119490100-53-XXX v	Amides, c8-18(even numbered) and c18-unsatd., n, n-(hydroxyethyl) ¹ Regulation 1272/2008 Aquatic Chronic 2: H411; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger	Self-classified  1 - <3 %
CAS: 52-51-7 EC: 200-143-0 Index: 603-085-00-8 REACH 01-2119980938-15-XXX v	Bronopol (INN) ¹ Regulation 1272/2008 Acute Tox. 4: H302+H312; Aquatic Acute 1: H400; Aquatic Chronic 2: H411; Eye Dam. 1: H318; Skin Irrit. 2: H315; STOT SE 3: H335 - Danger	ATP ATP01  <0,1 %

¹ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2015/830

To obtain more information on the risk of the substances consult sections 8, 11, 12, 15 and 16.

Other information:

Identification	Specific concentration limit
Alcohols, C12-14(even numbered), ethoxylated < 2.5 EO, sulfates, sodium salts CAS: 68891-38-3 EC: 500-234-8	% (w/w) >=10: Eye Dam. 1 - H318 5<= % (w/w) <10: Eye Irrit. 2 - H319

** Changes with regards to the previous version

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation. However, in case of intoxication symptoms it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or if necessary shower the affected person thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

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SECTION 5: FIREFIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Store in a cool, dry, well-ventilated location

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

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SECTION 7: HANDLING AND STORAGE (continued)

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the work environment

There are no occupational exposure limits for the substances contained in the product

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Alcohols, C12-14(even numbered), ethoxylated < 2.5 EO, sulfates, sodium salts CAS: 68891-38-3 EC: 500-234-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	2750 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	175 mg/m ³	Non-applicable
Amides, c8-18(even numbered) and c18-unsatd., n, n-(hydroxyethyl) CAS: Non-applicable EC: 931-329-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	4,16 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	73,4 mg/m ³	Non-applicable
Bronopol (INN) CAS: 52-51-7 EC: 200-143-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	7 mg/kg	Non-applicable	2,3 mg/kg	Non-applicable
	Inhalation	12,3 mg/m ³	4,2 mg/m ³	4,1 mg/m ³	4,2 mg/m ³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Alcohols, C12-14(even numbered), ethoxylated < 2.5 EO, sulfates, sodium salts CAS: 68891-38-3 EC: 500-234-8	Oral	Non-applicable	Non-applicable	15 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	1650 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	52 mg/m ³	Non-applicable
Amides, c8-18(even numbered) and c18-unsatd., n, n-(hydroxyethyl) CAS: Non-applicable EC: 931-329-6	Oral	Non-applicable	Non-applicable	6,25 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	2,5 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	21,73 mg/m ³	Non-applicable
Bronopol (INN) CAS: 52-51-7 EC: 200-143-0	Oral	1,1 mg/kg	Non-applicable	0,35 mg/kg	Non-applicable
	Dermal	4,2 mg/kg	Non-applicable	1,4 mg/kg	Non-applicable
	Inhalation	3,7 mg/m ³	1,3 mg/m ³	1,2 mg/m ³	1,3 mg/m ³

PNEC:

Identification				
Alcohols, C12-14(even numbered), ethoxylated < 2.5 EO, sulfates, sodium salts CAS: 68891-38-3 EC: 500-234-8	STP	10000 mg/L	Fresh water	0,24 mg/L
	Soil	0,946 mg/kg	Marine water	0,024 mg/L
	Intermittent	0,071 mg/L	Sediment (Fresh water)	5,45 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,545 mg/kg
Amides, c8-18(even numbered) and c18-unsatd., n, n-(hydroxyethyl) CAS: Non-applicable EC: 931-329-6	STP	830 mg/L	Fresh water	0,007 mg/L
	Soil	0,0189 mg/kg	Marine water	0,0007 mg/L
	Intermittent	0,024 mg/L	Sediment (Fresh water)	0,0424 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable
Bronopol (INN) CAS: 52-51-7 EC: 200-143-0	STP	0,43 mg/L	Fresh water	0,01 mg/L
	Soil	0,5 mg/kg	Marine water	0,0008 mg/L
	Intermittent	0,0025 mg/L	Sediment (Fresh water)	0,041 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,00328 mg/kg

8.2 Exposure controls:

A.- General security and hygiene measures in the work place

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)



As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection



The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Protective gloves against minor risks			Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420 and EN 374.

"As the product is a mixture of several substances, the resistance of the glove material can not be predicted in advance with total reliability and has therefore to be checked prior to the application"



D.- Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.		EN 166:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing			Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2001, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
	Anti-slip work shoes		EN ISO 20347:2012	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345 y EN 13832-1

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	0 % weight
V.O.C. density at 20 °C:	0,04 kg/m ³ (0,04 g/L)
Average carbon number:	4
Average molecular weight:	115,2 g/mol

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Not available
Colour:	Not available
Odour:	Not available
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	101 °C
Vapour pressure at 20 °C:	2343 Pa
Vapour pressure at 50 °C:	12346 Pa (12 kPa)
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	1051 kg/m ³
Relative density at 20 °C:	1,051
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *

Flammability:

Flash Point:	Non Flammable (>60 °C)
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	421 °C
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

Explosive:

Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *

9.2 Other information:

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

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SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

10.5 Incompatible materials:

Acids	Water	Combustive materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION **

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A.- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

** Changes with regards to the previous version

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SECTION 11: TOXICOLOGICAL INFORMATION ** (continued)

Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

The mixture is not irritant to eyes - the assessment with use of the bridge methods, comparison with reference formulations for which the tests were performed.

Classification number: DetNet/398

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Alcohols, C12-14, ethoxylated (7 EO) CAS: 68439-50-9 EC: Non-applicable	LD50 oral	1200 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Bronopol (INN) CAS: 52-51-7 EC: 200-143-0	LD50 oral	500 mg/kg	Rat
	LD50 dermal	1600 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	

** Changes with regards to the previous version

SECTION 12: ECOLOGICAL INFORMATION **

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

Identification	Acute toxicity		Species	Genus
Alcohols, C12-14(even numbered), ethoxylated < 2.5 EO, sulfates, sodium salts CAS: 68891-38-3 EC: 500-234-8	LC50	7.1 mg/L (96 h)	Danio rerio	Fish
	EC50	7.4 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	27 mg/L (72 h)	Scenedesmus subspicatus	Algae
Amides, c8-18(even numbered) and c18-unsatd., n, n-(hydroxyethyl) CAS: Non-applicable EC: 931-329-6	LC50	2.4 mg/L (96 h)	Oncorhynchus mykiss	Fish
	EC50	3.2 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	23.4 mg/L (72 h)	Scenedesmus subspicatus	Algae
Bronopol (INN) CAS: 52-51-7 EC: 200-143-0	LC50	0.1 - 1 mg/L (96 h)		Fish
	EC50	0.1 - 1 mg/L		Crustacean
	EC50	0.1 - 1 mg/L		Algae

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
Alcohols, C12-14(even numbered), ethoxylated < 2.5 EO, sulfates, sodium salts CAS: 68891-38-3 EC: 500-234-8	BOD5	Non-applicable	Concentration	10.5 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	100 %
Alcohols, C12-14, ethoxylated (7 EO) CAS: 68439-50-9 EC: Non-applicable	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	95 %

** Changes with regards to the previous version

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SECTION 12: ECOLOGICAL INFORMATION ** (continued)

Identification	Degradability		Biodegradability	
Amides, c8-18(even numbered) and c18-unsatd., n, n-(hydroxyethyl) CAS: Non-applicable EC: 931-329-6	BOD5	Non-applicable	Concentration	Non-applicable
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	77 %
Bronopol (INN) CAS: 52-51-7 EC: 200-143-0	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	0 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
Amides, c8-18(even numbered) and c18-unsatd., n, n-(hydroxyethyl) CAS: Non-applicable EC: 931-329-6	BCF	44
	Pow Log	1.35
	Potential	Moderate
Bronopol (INN) CAS: 52-51-7 EC: 200-143-0	BCF	0.6
	Pow Log	-0.64
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Amides, c8-18(even numbered) and c18-unsatd., n, n-(hydroxyethyl) CAS: Non-applicable EC: 931-329-6	Koc	243	Henry	3,7E-7 Pa·m ³ /mol
	Conclusion	Moderate	Dry soil	No
	Surface tension	2,77E-2 N/m (24,5 °C)	Moist soil	No

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

** Changes with regards to the previous version

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
20 01 29*	Detergents containing dangerous substances	Dangerous

Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2017 and RID 2017:

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SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number:	Non-applicable
14.2 UN proper shipping name:	Non-applicable
14.3 Transport hazard class(es):	Non-applicable
Labels:	Non-applicable
14.4 Packing group:	Non-applicable
14.5 Environmental hazards:	No
14.6 Special precautions for user	
Special regulations:	Non-applicable
Tunnel restriction code:	Non-applicable
Physico-Chemical properties:	see section 9
Limited quantities:	Non-applicable
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

14.1 UN number:	Non-applicable
14.2 UN proper shipping name:	Non-applicable
14.3 Transport hazard class(es):	Non-applicable
Labels:	Non-applicable
14.4 Packing group:	Non-applicable
14.5 Environmental hazards:	No
14.6 Special precautions for user	
Special regulations:	Non-applicable
EmS Codes:	
Physico-Chemical properties:	see section 9
Limited quantities:	Non-applicable
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2017:

14.1 UN number:	Non-applicable
14.2 UN proper shipping name:	Non-applicable
14.3 Transport hazard class(es):	Non-applicable
Labels:	Non-applicable
14.4 Packing group:	Non-applicable
14.5 Environmental hazards:	No
14.6 Special precautions for user	
Physico-Chemical properties:	see section 9
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Regulation (EC) No 528/2012: contains a preservative to protect the initial properties of the treated article. Contains Bronopol (INN), 1,2-benzisothiazol-3(2H)-one, 2-methyl-2H-isothiazol-3-one.

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Bronopol (INN) (Product-type 2, 6, 9, 11, 12, 22) ; 1,2-benzisothiazol-3(2H)-one (Product-type 2, 6, 9, 10, 11, 12, 13) ; 2-methyl-2H-isothiazol-3-one (Product-type 6, 11, 12, 13)

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Ludwik - washing gel Color & Black

SECTION 15: REGULATORY INFORMATION (continued)

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Regulation (EC) No 648/2004 on detergents:

In accordance with this regulation the product complies with the following:

The tensoactives contained in this mixture comply with the biodegradability criteria stipulated in Regulation (EC) n°648/2004 on detergents. The information to prove this is available to the relevant authorities of the Member States and will be shown to them by direct request or the request of a detergent manufacturer.

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

- Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products
- Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents
- Commission Regulation (EC) No 907/2006 of 20 June 2006 amending Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, in order to adapt Annexes III and VII
- Commission Regulation (EC) No 551/2009 of 25 June 2009 amending Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, in order to adapt Annexes V and VI thereto (surfactant derogation)

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (Regulation (EC) No 2015/830)

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

SECTION 3, SECTION 11, SECTION 12

Texts of the legislative phrases mentioned in section 2:

H319: Causes serious eye irritation

H412: Harmful to aquatic life with long lasting effects

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

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Ludwik - washing gel Color & Black

SECTION 16: OTHER INFORMATION (continued)

Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin
Aquatic Acute 1: H400 - Very toxic to aquatic life
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:

Minimal training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol–water partition coefficient
Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -