

# Safety Data Sheet

This SDS is for information only.

# DUO SOFT DU2020

Revision: 2024-07-31

Version: 01.0

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

1.1 Product identifier Trade name: DUO SOFT DU2020

1.2 Relevant identified uses of the substance or mixture and uses advised against Product use: Laundry conditioner. For professional use only.

Uses advised against:

Uses other than those identified are not recommended.

1.3 Details of the supplier of the safety data sheet ZOMA GEORGIA LLC, Rustavi Highway 68A, Tbilisi, Georgia

**Contact details** ZOMA GEORGIA LLC

Legal Address: - Georgia, Tbilisi, Isani district, Bochorma str., N 13, apt.19 Actual Address: - Georgia, Tbilisi, Rustavi Highway 68A,

Tel: +(995)322 501 502

## 1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible) Emergency Health Services: 595 889 441; 112

# SECTION 2: Hazards identification

# 2.1 Classification of the substance or mixture

Not classified as hazardous

#### 2.2 Label elements

Hazard statements: EUH210 - Safety data sheet available on request.

# 2.3 Other hazards

No other hazards known.

# SECTION 3: Composition/information on ingredients

## 3.2 Mixtures

Ingredient(s)	CAS number	EC number	Classification	Weight percent
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	91995-81-2	931-203-0	Chronic aquatic toxicity, Category 3 (H412)	3-10
Citric acid	77-92-9		Specific target organ toxicity - Single exposure, Category 3 (H335) Eye irritation, Category 2 (H319)	2-5

Workplace exposure limit(s), if available, are listed in subsection 8.1. For the full text of the H and EUH phrases mentioned in this Section, see Section 16.

# SECTION 4: First aid measures

4.1 Description of first aid measures	
Inhalation:	Get medical attention or advice if you feel unwell.
Skin contact:	Wash skin with plenty of lukewarm, gently flowing water. If skin irritation occurs: Get medical advice or attention.
Eye contact:	Rinse cautiously with water for several minutes. If irritation occurs and persists, get medical attention.
Ingestion:	Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Get medical attention or advice if you feel unwell.
Self-protection of first aider:	Consider personal protective equipment as indicated in subsection 8.2.

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

Inhalation:	No known effects or symptoms in normal use.
Skin contact:	No known effects or symptoms in normal use.
Eye contact:	No known effects or symptoms in normal use.
Ingestion:	No known effects or symptoms in normal use.

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

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

# SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam. Unsuitable extinguishing media: Not applicable.

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

No special hazards known.

#### 5.3 Advice for firefighters

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

# SECTION 6: Accidental release measures

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

No special measures required.

#### 6.2 Environmental precautions

Dilute with plenty of water. Do not allow to enter drainage system, surface or ground water.

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

Dyke to collect large liquid spills. Absorb with liquid-binding material (sand, diatomite, universal binders). Do not place spilled materials back into the original container. Collect in closed and suitable containers for disposal.

#### 6.4 Reference to other sections

For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

# SECTION 7: Handling and storage

## 7.1 Precautions for safe handling

Measures to prevent fire and explosions: No special precautions required.

# Measures required to protect the environment:

For environmental exposure controls see subsection 8.2.

#### Advices on general occupational hygiene:

Handle in accordance with good industrial hygiene and safety practice. Do not mix with other products.

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

Store in accordance with local and national regulations. Keep only in original packaging. For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

## 7.3 Specific end use(s)

No specific advice for end use available.

# SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters Workplace exposure limits

Air limit values, if available:

Biological limit values, if available:

#### 8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet.

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If available, please refer to the product information sheet for application and handling instructions. Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product: Covering activities such as filling and transfer of product to application equipment, flasks or buckets

Appropriate engineering controls: Appropriate organisational controls:	No special requirements under normal use conditions. No special requirements under normal use conditions.
Personal protective equipment	
Eye / face protection:	Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product (EN 16321 / EN 166).
Hand protection:	No special requirements under normal use conditions.
Body protection:	No special requirements under normal use conditions.
Respiratory protection:	No special requirements under normal use conditions.
Environmental exposure controls:	No special requirements under normal use conditions.
Recommended safety measures for ha	ndling the <u>diluted</u> product:

Recommended maximum concentration (% w/w): 1.0

Appropriate engineering controls: Appropriate organisational controls:	No special requirements under normal use conditions. No special requirements under normal use conditions.
Personal protective equipment Eye / face protection: Hand protection: Body protection: Respiratory protection:	No special requirements under normal use conditions. No special requirements under normal use conditions. No special requirements under normal use conditions No special requirements under normal use conditions.
Environmental exposure controls:	No special requirements under normal use conditions.

# SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties Information in this section refers to the product, unless it is specifically stated that substance data is listed

Physical state: Liquid Colour: Opaque, Blue Odour: Product specific Odour threshold: Not applicable **pH:** =< 2 (neat) Melting point/freezing point (°C): Not determined Initial boiling point and boiling range (°C): Not determined

ISO 4316 Not relevant to classification of this product

Not relevant to classification of this product

Substance data, boiling point			
Ingredient(s)	Value	Method	Atmospheric pressure
	(°C)		(hPa)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	> 82	Method not given	
Citric acid	No data available		

Flammability (liquid): Not flammable. Flash point (°C): Not determined Sustained combustion: Not applicable. (UN Manual of Tests and Criteria, section 32, L.2)

Cubatanaa data bailing paint

Evaporation rate: Not determined Flammability (solid, gas): Not applicable to liquids Lower and upper explosion limit/flammability limit (%) Not determined

Substance data, flammability or explosive limits, if available:

Vapour pressure: Not determined

Method / remark

Method / remark

Method / remark

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Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available		
Citric acid	No data available		

#### Vapour density: Not determined Relative density: $\approx 1.0 (20 \text{ °C})$ Solubility in / Miscibility with water: Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available		(0)
Citric acid	1630	Method not given	

Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3

Autoignition temperature: Not determined Decomposition temperature: Not applicable.

Kinematic viscosity:Not determinedExplosive properties:Not explosive.Oxidising properties:Not oxidising.

9.2 Other information Surface tension (N/m): Not determined Corrosion to metals: Not corrosive

Substance data, dissociation constant, if available:

# SECTION 10: Stability and reactivity

#### 10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

#### 10.2 Chemical stability

Stable under normal storage and use conditions.

#### 10.3 Possibility of hazardous reactions

No hazardous reactions known under normal storage and use conditions.

### 10.4 Conditions to avoid

None known under normal storage and use conditions.

# 10.5 Incompatible materials

None known under normal use conditions.

### 10.6 Hazardous decomposition products

None known under normal storage and use conditions.

# **SECTION 11: Toxicological information**

## 11.1 Information on toxicological effects

Mixture data:

# Relevant calculated ATE(s):

# ATE - Oral (mg/kg): >2000

Substance data, where relevant and available, are listed below:

#### Acute toxicity Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	LD 50	5000	Rat	Method not given	
Citric acid	LD 50	5400-11700	Rat	Method not given	

# Method / remark

Method / remark

OECD 109 (EU A.3)

DM-006 Viscosity - Standard

Not relevant to classification of this product

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Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	LD 50	> 2000	Rat	Method not given	
Citric acid	LD 50	> 2000	Rat	Method not given	

Acute inhalative toxicity					
Ingredient(s)	Endpoint	Value	Species	Method	Exposure
		(mg/l)			time (h)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with		No data			
triethanolamine, di-Me sulfate-quaternized		available			
Citric acid		No data			
		available			

# Irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	Not irritant	Rabbit	OECD 404 (EU B.4)	4 hour(s)
Citric acid	Not irritant	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity				
Ingredient(s)	Result	Species	Method	Exposure time
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	Not corrosive or irritant	Rabbit	OECD 405 (EU B.5)	4 hour(s)
Citric acid	Severe damage Irritant	Rabbit	OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available			
Citric acid	No data available			

# Sensitisation

Sensitisation by skin contact				
Ingredient(s)	Result	Species	Method	Exposure time (h)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	Not sensitising		Method not given	
Citric acid	Not sensitising	Guinea pig	Method not given	

Sensitisation by inhalation

	Ingredient(s)	Result	Species	Method	Exposure time
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with		No data available			
	triethanolamine, di-Me sulfate-quaternized				
	Citric acid	No data available			

# CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction) Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized		OECD 476 OECD 471 (EU B.12/13)	No data available	
	No data available		No evidence of genotoxicity, negative test results	Method not given

Carcinogenicity

Ingredient(s)	Effect
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available
Citric acid	No evidence for carcinogenicity, negative test results

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Toxicity for reproduction Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized			No data available				
Citric acid			No data available				No evidence for reproductive toxicity

#### Repeated dose toxicity Sub-acute or sub-chronic oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized		No data available				
Citric acid		No data available				

#### Sub-chronic dermal toxicity Endpoint Value Specific effects and organs Ingredient(s) Species Method Exposure (mg/kg bw/d) time (days) affected fatty acids, C16-18 (even numbered) and C18 unsatd., No data reaction products with triethanolamine, di-Me sulfate-quaternized available Citric acid No data available

# Sub-chronic inhalation toxicity

Ingredient(s)	Endpoint	Value	Species	Method		Specific effects and organs
		(mg/kg bw/d)			time (days)	affected
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized		No data available				
Citric acid		No data available				

#### Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized			No data available					
Citric acid			No data available					

#### STOT-single exposure

Ingredient(s)	Affected organ(s)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available
Citric acid	No data available

# STOT-repeated exposure

Ingredient(s)	Affected organ(s)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with	No data available
triethanolamine, di-Me sulfate-quaternized	
Citric acid	No data available

### Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3.

### Potential adverse health effects and symptoms

Effects and symptoms related to the product, if any, are listed in subsection 4.2.

# SECTION 12: Ecological information

# 12.1 Toxicity

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## No data is available on the mixture

Substance data, where relevant and available, are listed below:

#### Aquatic short-term toxicity Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	LC 50	1.91	Fish	OECD 203 (EU C.1)	96
Citric acid	LC 50	440	Leuciscus idus	Method not given	48

Aquatic short-term toxicity - crustacea								
Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)			
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	EC 50	2.23	Daphnia	OECD 202 (EU C.2)	48			
Citric acid	EC 50	1535	Daphnia magna Straus	Method not given	24			

Aquatic short-term toxicity - algae								
Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)			
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	Er C 50	2.14	Desmodesmus subspicatus	OECD 201 (EU C.3)	72			
Citric acid	LC 50	425	Scenedesmus quadricauda	Method not given	168			

quatic short-term toxicity - marine species									
Ingredient(s)	Endpoint	Value	Species	Method	Exposure				
		(mg/l)			time (days)				
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with		No data							
triethanolamine, di-Me sulfate-quaternized		available							
Citric acid		No data							
		available							

ļ	npact on sewage plants - toxicity to bacteria								
	Ingredient(s)	Inoculum	Method	Exposure					
			(mg/l)			time			
	fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with		No data						
	triethanolamine, di-Me sulfate-quaternized		available						
	Citric acid	EC 50	> 10000	Pseudomonas	Method not given	16 hour(s)			
				putida					

# Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized		No data available				
Citric acid		No data available				

Aquatic long-term toxicity - crustacea Ingredient(s) Endpoint Value Species Method Exposure Effects observed (mg/l) time fatty acids, C16-18 (even numbered) and C18 unsatd., No data reaction products with triethanolamine, di-Me available sulfate-quaternized Citric acid No data available

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

# **Terrestrial toxicity**

Terrestrial toxicity - soil invertebrates, including earthworms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
Citric acid		No data				
		available				

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Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
Citric acid		No data available				

#### Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
Citric acid		No data				
		available				

#### Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
Citric acid		No data available				

#### Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
Citric acid		No data available				

### 12.2 Persistence and degradability

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# Abiotic degradation

Abiotic degradation - photodegradation in air, it available:									
Ingredient(s)	Half-life time	Method	Evaluation	Remark					
Citric acid	No data available								

#### Abiotic degradation - hydrolysis, if available:

Ingredient(s)	Half-life time in fresh water	Method	Evaluation	Remark
Citric acid	No data available			

#### Abiotic degradation - other processes, if available:

	Ingredient(s)	Туре	Half-life time	Method	Evaluation	Remark
	Citric acid		No data available			

# Biodegradation

#### Ready biodegradability - aerobic conditions Ingredient(s) Inoculum Analytical **DT** 50 Method Evaluation method 98.9% in 28 day(s) OECD 301B fatty acids, C16-18 (even numbered) and C18 unsatd., Activated sludge, CO 2 production Readily biodegradable aerobe Adapted activated sludge reaction products with triethanolamine, di-Me sulfate-quaternized Method not given Readily biodegradable OECD 301B Citric acid 97 % in 28 day(s)

Ready biodegradability - anaerobic and marine conditions, if available:

Ingredient(s)	Medium & Type	Analytical method	DT 50	Method	Evaluation
Citric acid					No data available

#### Degradation in relevant environmental compartments, if available:

Ingredient(s)	Medium & Type	Analytical method	DT 50	Method	Evaluation
Citric acid					No data available

# 12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)							
Ingredient(s)	Value	Method	Evaluation	Remark			
fatty acids, C16-18 (even numbered)	No data available						
and C18 unsatd., reaction products with							
triethanolamine, di-Me							
sulfate-quaternized							
Citric acid	-1.72		No bioaccumulation expected				
•	-1.72		No bioaccumulation expected				

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Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available				
Citric acid	No data available				

## 12.4 Mobility in soil

 Adsorption/Desorption to soil or sediment							
Ingredient(s)	Adsorption coefficient Log Koc	Desorption coefficient Log Koc(des)	Method	Soil/sediment type	Evaluation		
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available						
Citric acid	No data available				Potential for mobility in soil,		

#### 12.5 Other adverse effects

No other adverse effects known.

# SECTION 13: Disposal considerations

# 13.1 Waste treatment methods

Waste from residues / unused products:

The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.

Empty packaging Recommendation: Suitable cleaning agents:

Dispose of observing national or local regulations. Water, if necessary with cleaning agent.

# **SECTION 14: Transport information**

Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)

14.1 UN number or ID number: Non-dangerous goods

14.2 UN proper shipping name: Non-dangerous goods

14.3 Transport hazard class(es): Non-dangerous goods

14.4 Packing group: Non-dangerous goods

14.5 Environmental hazards: Non-dangerous goods

14.6 Special precautions for user: Non-dangerous goods

14.7 Maritime transport in bulk according to IMO instruments: Non-dangerous goods

# **SECTION 15: Regulatory information**

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

Ingredients according to EC Detergents Regulation 648/2004 cationic surfactants perfumes

< 5 %

# **SECTION 16: Other information**

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

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#### Abbreviations and acronyms:

- AISE The international Association for Soaps, Detergents and Maintenance Products
- ATE Acute Toxicity Estimate
- DNEL Derived No Effect Limit EC50 effective concentration, 50%
- ERC Environmental release categories EUH CLP Specific hazard statement
- LC50 Lethal Concentration, 50% / Median Lethal Concentration
- LCS Life cycle stage
  LD50 Lethal Dose, 50% / Median Lethal dose
- NOAEL No observed adverse effect level
- NOEL No observed effect level

- OECD Organisation for Economic Cooperation and Development
  PBT Persistent, Bioaccumulative and Toxic
  PNEC Predicted No Effect Concentration
  PROC Process categories
  REACH number REACH registration number, without supplier specific part
  Whith user Dereitates and user Disconstructive
- vPvB very Persistent and very Bioaccumulative
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H412 Harmful to aquatic life with long lasting effects.

End of Safety Data Sheet