SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878



MAG CLEANER RFU

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

1.1. Product identifier

: MAG CLEANER RFU Product name **Registration number REACH** Product type REACH

: Not applicable (mixture)

: Mixture

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

1.2.1 Relevant identified uses

Detergent according to Regulation (EC) No 648/2004

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

Novatio* Industrielaan 5B B-2250 Olen +32 14 25 76 40 **▲** +32 14 22 02 66 info@novatio.be *NOVATIO is a registered trademark of Novatech International N.V.

Manufacturer of the product

Novatech International N.V. Industrielaan 5B B-2250 Olen +32 14 85 97 37 🛥 +32 14 85 97 38 info@novatech.be

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch) : +32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

2.2. Label elements

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

2.3. Other hazards

No other hazards known

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name REACH Registration No	H Registration No EC No Conc. (C) Classification according to		Classification according to CLP	Note	Remark	M-factors and ATE
didecyldimethylammonium chloride	7173-51-5 230-525-2	C≤0.7%	Acute Tox. 3; H301 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 2; H411	(1)(10)	Constituent	M: 10 (Acute, ECHA)
 For H- and EUH-statements in full: see Subject to restrictions of Annex XVII 		o. 1907/2006			-	
Created by: Brandweerinformatiecentrum vo	or gevaarlijke stoffe	n vzw (BIG)	Publica	tion date: 2009-	06-25	-en
Technische Schoolstraat 43 A, B-2440 Geel http://www.big.be © BIG vzw			Date of	revision: 2021-0	07-21	16239-022
Reason for revision: 3.2, 9, 12, 15						878-
Revision number: 0400			BIG nur	nber: 48413		1/9

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

If you feel unwell, seek medical advice.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Rinse with water. Take victim to a doctor if irritation persists.

After eye contact:

Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Consult a doctor/medical service if you feel unwell.

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

4.2.1 Acute symptoms

After inhalation: No effects known.

After skin contact:

No effects known.

After eve contact:

No effects known.

After ingestion:

No effects known. 4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher. Major fire: Class B foam (alcohol-resistant), Water spray if puddle cannot expand.

5.1.2 Unsuitable extinguishing media:

Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.

Major fire: Water; risk of puddle expansion.

5.2. Special hazards arising from the substance or mixture

Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours, hydrogen chloride.

5.3. Advice for firefighters

5.3.1 Instructions:

No specific fire-fighting instructions required.

5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No naked flames.

- 6.1.1 Protective equipment for non-emergency personnel
- See section 8.2
- 6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034). Suitable protective clothing

See section 8.2

6.2. Environmental precautions

Contain released product.

6.3. Methods and material for containment and cleaning up

Take up liquid spill into absorbent material. Scoop absorbed substance into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

6.4. Reference to other sections

See section 13.

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Revision number: 0400

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling

Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Storage temperature: < 50 °C. Meet the legal requirements. Keep container in a well-ventilated place. Protect against frost. Keep out of direct sunlight. Keep container tightly closed.

7.2.2 Keep away from:

Heat sources, oxidizing agents, reducing agents, (strong) acids, (strong) bases.

7.2.3 Suitable packaging material:

No data available

7.2.4 Non suitable packaging material:

No data available

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

If applicable and available it will be listed below.

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 Threshold values

PNEC

didecyldimethylammonium chloride

Compartments	Value	Remark
Fresh water	2 μg/l	
Fresh water (intermittent releases)	0.29 μg/l	
Marine water	0.2 μg/l	
STP	0.595 mg/l	
Fresh water sediment	2.82 mg/kg sediment dw	
Marine water sediment	0.28 mg/kg sediment dw	
Soil	1.4 mg/kg soil dw	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Do not eat, drink or smoke during work.

a) Respiratory protection:

Respiratory protection not required in normal conditions.

b) Hand protection:

Protective gloves against chemicals (EN 374).

	Measured breakthrough time	Thickness	Protection index	Remark
nitrile rubber	> 480 minutes	0.35 mm	Class 6	

c) Eye protection:

Eye protection not required in normal conditions.

d) Skin protection:

Protective clothing (EN 14605 or EN 13034).

8.2.3 Environmental exposure controls:

See sections 6.2, 6.3 and 13

Reason for revision: 3.2, 9, 12, 15

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Liquid
Odour	Characteristic odour
Odour threshold	No data available in the literature
Colour	No data available on colour
Particle size	Not applicable (liquid)
Explosion limits	No data available in the literature
Flammability	Not classified as flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	1 mPa.s ; 20 °C
Kinematic viscosity	1 mm²/s ; 40 °C
Melting point	0 °C
Boiling point	78 °C - 100 °C
Relative vapour density	No data available in the literature
Vapour pressure	23 hPa
Solubility	Water ; soluble
Relative density	1.00
Absolute density	1000 kg/m ³
Decomposition temperature	No data available in the literature
Auto-ignition temperature	No data available in the literature
Flash point	No data available in the literature
рН	7.5

9.2. Other information Evaporation rate

1.3 ; Butyl acetate

SECTION 10: Stability and reactivity

10.1. Reactivity

Heating increases the fire hazard. Neutral reaction.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Precautionary measures

Keep away from naked flames/heat.

10.5. Incompatible materials

Oxidizing agents, reducing agents, (strong) acids, (strong) bases.

10.6. Hazardous decomposition products

Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours, hydrogen chloride.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

11.1.1 Test results

Acute toxicity

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No (test)data on the mixture available

Judgement is based on the relevant ingredients didecyldimethylammonium chloride

Route of exposure	Parameter	Method	Value	Exposure time		Value determination	Remark
Oral	LD50	OECD 401	264 mg/kg bw		Rat (female)	Experimental value	
Dermal	LD50	OECD 402	> 1000 mg/kg bw		Rat (male / female)	Experimental value	
Inhalation						Data waiving	

Conclusion

Not classified for acute toxicity

Corrosion/irritation

Reason for revision: 3.2, 9, 12, 15

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MAG CLEANER RFU

No (test)data on the mixture available Judgement is based on the relevant ingredients

didecyldimethylammonium chloride

Route of exposure	Result	Method	Exposure time	Time point		Value determination	Remark
Eye						Data waiving	
Skin	Corrosive	OECD 404		1; 24; 48; 72 hrs; 7; 14 days	Rabbit	Experimental value	

Conclusion

Not classified as irritating to the skin

Not classified as irritating to the eyes

Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

MAG CLEANER RFU

No (test)data on the mixture available

Judgement is based on the relevant ingredients

didecyldimethylammonium chloride

Route of exposure	Result	Method	••••••	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406			Guinea pig (female)	Experimental value	

Conclusion

Not classified as sensitizing for inhalation

Not classified as sensitizing for skin

Specific target organ toxicity

MAG CLEANER RFU

No (test)data on the mixture available Judgement is based on the relevant ingredients

didecyldimethylammonium chloride

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOAEL	OECD 453	27.3 mg/kg bw/day - 33.8 mg/kg bw/day		No effect	52 week(s)	Rat (male / female)	Experimental value
Oral (diet)	LOAEL	OECD 453	55.4 mg/kg bw/day - 69.5 mg/kg bw/day		Body weight gain	52 week(s)	Rat (male / female)	Experimental value
Dermal								Data waiving
Inhalation								Data waiving

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

MAG CLEANER RFU

No (test)data on the mixture available

Judgement is based on the relevant ingredients didecyldimethylammonium chloride

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 473	Human lymphocytes		Experimental value	

Mutagenicity (in vivo)

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No (test)data on the mixture available

Judgement is based on the relevant ingredients

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

Reason for revision: 3.2, 9, 12, 15

MAG CLEANER RFU

No (test)data on the mixture available Judgement is based on the relevant ingredients

Route of	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
exposure								
Oral (diet)	Dose level	OECD 453	55.4 mg/kg bw/day - 69.5 mg/kg bw/day	104 week(s)	Rat (male / female)	No carcinogenic effect		Experimental value

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

MAG CLEANER RFU

No (test)data on the mixture available Judgement is based on the relevant ingredients

didecyldimethylammonium chloride

	Parameter	Method	Value	Exposure time	Species	Effect	- 0-	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	12 mg/kg bw/day	23 days (gestation, daily)	Rabbit	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 414	4 mg/kg bw/day	23 days (gestation, daily)	Rat	No effect		Experimental value
Effects on fertility (Oral (diet))	NOAEL	OECD 416	1500 ppm		Rat (male / female)	No effect		Experimental value

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

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No (test)data on the mixture available

Chronic effects from short and long-term exposure

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No effects known.

11.2. Information on other hazards

No evidence of endocrine disrupting properties

SECTION 12: Ecological information

12.1. Toxicity

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No (test)data on the mixture available

Judgement of the mixture is based on the relevant ingredients <u>didecyldimethylammonium chloride</u>

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	0.49 mg/l	96 h	Danio rerio	Semi-static system		Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	OECD 202	0.029 mg/l	48 h	Daphnia magna	Static system		Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	0.062 mg/l	72 h	Pseudokirchneri ella subcapitata	Static system	Fresh water	Experimental value; Nominal concentration
	NOEC	OECD 201	0.013 mg/l	72 h	Pseudokirchneri ella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea	NOEC	OECD 211	0.021 mg/l	21 day(s)	Daphnia magna	Semi-static system		Experimental value; Reproduction

Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2. Persistence and degradability

Reason for revision: 3.2, 9, 12, 15

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Revision number: 0400

didecyldimethylammonium chloride

В	Biodegradation water				
	Method	Value	Duration	Value determination	
	OECD 301B	71 %; GLP	28 day(s)	Experimental value	

Conclusion

Water

The surfactant(s) is/are biodegradable according to Regulation (EC) No 648/2004

12.3. Bioaccumulative potential

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Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

didecyldimethylammonium chloride

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		2.58	20 °C	Experimental value

Conclusion

(log) Koc

Does not contain bioaccumulative component(s)

12.4. Mobility in soil

didecyldimethylammonium chloride

(10				
	Parameter	Method	Value	Value determination
Ī	og Koc		4.15	Calculated value

Conclusion

Contains component(s) that adsorb(s) into the soil

12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

12.7. Other adverse effects

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Greenhouse gases

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

European Union

Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

20 01 30 (separately collected fractions (except 15 01): detergents other than those mentioned in 20 01 29). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

13.1.3 Packaging/Container

No data available

SECTION 14: Transport information

Road (ADR), Rail (RID), Inland waterways (ADN), Sea (IMDG/IMSBC), Air (ICAO-TI/IATA-DGR)

Transport	Not subject
.4.2. UN proper shipping name	
4.3. Transport hazard class(es)	
Hazard identification number	
Class	
Classification code	

Reason for revision: 3.2, 9, 12, 15

Date of revision: 2021-07-21

14.4. Packing group				
Packing group				
Labels				
14.5. Environmental hazards				
Environmentally hazardous substance mark	no			
14.6. Special precautions for user				
Special provisions				
Limited quantities				
14.7. Maritime transport in bulk according to IMO instruments				
Annex II of MARPOL 73/78	Not applicable, based on available data			

SECTION 15: Regulatory information

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

VOC content Directive 2010/75/EU

VOC content	Remark
0.27 %	
9.45 g/l	

Prior informed consent (PIC)

Contains component(s) listed in Annex I of Regulation (EU) No 649/2012: Part 1 - List of chemicals subject to export notification procedure

Ingredients according to Regulation (EC) No 648/2004 and amendments

<5% cationic surfactants, <5% non-ionic surfactants

European drinking water standards (Directive 98/83/EC)

didecyldimethylammonium chloride

Parameter	Parametric value	Note	Reference
Chloride	250 mg/l		Listed in Annex I, Part C, of Directive 98/83/EC on the quality of
			water intended for human consumption.

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
didecyldimethylammonium chloride		

National legislation Belgium MAG CLEANER RFU

No data available

National legislation The Netherlands MAG CLEANER RFU

Reason for revision: 3.2, 9, 12, 15

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Waterbezwaarlijkheid

B (2); Algemene Beoordelingsmethodiek (ABM)

National legislation France

MAG CLEANER RFU

No data available

National legislation Germany MAG CLEANER REU

_					
Lagerklasse (TRGS510) 10: Brennbare Flüssigkeiten die keiner der vorgenannten LGK zuzuordnen sind		10: Brennbare Flüssigkeiten die keiner der vorgenannten LGK zuzuordnen sind			
	WGK	3; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017			
<u>c</u>	didecyldimethylammonium chloride				
	TA-Luft	5.2.5/I			

National legislation United Kingdom

MAG CLEANER RFU

No data available

Other relevant data

MAG CLEANER RFU

No data available

15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

SECTION 16: Other information

Full text of any H- and EUH-statements referred to under section 3:

- H301 Toxic if swallowed.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
ATE	Acute Toxicity Estimate
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
ErC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

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