NEW FADOR	MATERI		<b>FETY D</b> to Reg. (EU) 8		IEET	Board Code S-P4/2-2 Board Date 05/2010 Board Rev. 1
Document n°	Revision date	Rev. N°	Edited by	Approved by	Filed by	Page
58/09	21.09.2018	4	RLAB	DG	RLAB	1 di 12

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

1.1. Product identifier

Code: Product name F\_231 - 036\_074 BRILLANTANTE AMACASA

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

Identified Uses	Industrial	Professional	Consumer
Rinse aid	-	~	<b>v</b>
Uses Advised Against			

Do not use for uses other than those indicated

<b>1.3. Details of the suppl</b> Name Full address District and Country	ier of the safety data sheet	NEW FADOR S.r.I. Via M. Calderara 31 25018 Montichiari (BS) Tel. +39 030 961243 Fax +39 030 962500	)				
a mail address of the com	anotant naroan	Fax +39 030 902300					
e-mail address of the com							
responsible for the Safety	Data Sheet	info@newfador.it					
1.4. Emergency telephone For urgent inquiries refer	to	tel. +39 030 961243 (mon-fri 8.30-12.30 13.30-17.30)					
<b>SECTION 2. Haza</b>	rds identification						
2.1. Classification of the s	substance or mixture						
supplements). The product	thus requires a safety datas	heet that complies with the	C) Regulation 1272/2008 (CLP) (and subsequent amendments and le provisions of (EU) Regulation 2015/830. are given in sections 11 and 12 of this sheet.				
Hazard classification and ir Eye irritation, category 2	ndication:	H319	Causes serious eye irritation.				
2.2. Label elements							
Hazard labelling pursuant to	o EC Regulation 1272/2008	(CLP) and subsequent am	nendments and supplements.				
Hazard pictograms:							
Signal words:	Warning						
Hazard statements:							
H319	Causes serious eye irritation	on.					
Precautionary statements:							
P101 P102 P280 P305+P351+P338 P337+P313	If medical advice is needed Keep out of reach of childr Wear protective gloves/ pr IF IN EYES: Rinse cautiou rinsing. If eye irritation persists: Ge	en. otective clothing / eye pro sly with water for several i	tection / face protection. minutes. Remove contact lenses, if present and easy to do. Continue				
Ingredients according to Re	egulation (EC) No. 648/2004						

NEW FADOR	MATERI		<b>FETY [</b> to Reg. (EU) 8		IEET	Board Code S-P4/2-2 Board Date 05/2010 Board Rev. 1
Document n°	Revision date	Rev. N°	Edited by	Approved by	Filed by	Page
58/09	21.09.2018	4	RLAB	DG	RLAB	2 di 12

Less than 5% non-ionic surfactants

perfumes

non-ionic surfactant

Preservation agents: Glutaral, Benzisothiazolinone, 2-Bromo-2-Nitropropane-1,3-Diol

## 2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

# **SECTION 3. Composition/information on ingredients**

## 3.1. Substances

Information not relevant

## 3.2. Mixtures

Contains:

Identification ACIDO CITRICO MONOIDRATO	x = Conc. %	Classification 1272/2008 (CLP)
CAS 5949-29-1	7≤x< 8	Eye Irrit. 2 H319
EC 201-069-1		
INDEX -		
Reg. no. 01-2119457026-42		
PROPAN-2-OL	0 4 1 4 0 5	
CAS 67-63-0	2 ≤ x < 2,5	Flam. Liq. 2 H225, Eye Irrit. 2 H319,
F0 000 004 7		STOT SE 3 H336
EC 200-661-7 INDEX 603-117-00-0		
Reg. no. 01-2119457558-25		
UNDECANOL, BRANCHED AND LINEAR, ETHOXYLATED, PROPOXYLATED		
(>=2.5 MOLES EO/PO)		
CAS -	2 ≤ x < 2,5	Eye Dam. 1 H318
EC 940-634-3		
2-BROMO-2-NITROPROPAN-1,3-DIOL	0 4 4 4 0 05	A
CAS 52-51-7	0 ≤ x < 0,05	Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, Aquatic Acute 1 H400 M=10, Aquatic Chronic 2 H411
EC 200-143-0		
INDEX 603-085-00-8		
Reg. no. 01-2119980938-15		
MORPHOLINE		
CAS 110-91-8	0 ≤ x < 0,05	Flam. Liq. 3 H226, Acute Tox. 3 H311, Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Corr. 1B H314, Eye Dam. 1 H318
EC 203-815-1		
INDEX 613-028-00-9		

Reg. no. 01-2119496057-30

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

# **SECTION 4. First aid measures**

NEW FADOR	MATERI	-	<b>FETY D</b> to Reg. (EU) 8	_	IEET	Board Code S-P4/2-2 Board Date 05/2010 Board Rev. 1
Document n°	Revision date	Rev. N°	Edited by	Approved by	Filed by	Page
58/09	21.09.2018	4	RLAB	DG	RLAB	3 di 12

#### 4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Wash contaminated clothing before using it again. INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately. INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

## **SECTION 5. Firefighting measures**

## 5.1. Extinguishing media

## SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

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

## HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

## 5.3. Advice for firefighters

## GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal firefighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with selfcontained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

## **SECTION 6.** Accidental release measures

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

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

#### 6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

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

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

#### 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

# **SECTION 7. Handling and storage**

NEW FADOR	MATERI		<b>FETY D</b> to Reg. (EU) 8		IEET	Board Code S-P4/2-2 Board Date 05/2010 Board Rev. 1
Document n°	Revision date	Rev. N°	Edited by	Approved by	Filed by	Page
58/09	21.09.2018	4	RLAB	DG	RLAB	4 di 12

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

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

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

#### 7.3. Specific end use(s)

Information not available

## **SECTION 8. Exposure controls/personal protection**

#### 8.1. Control parameters

#### Regulatory References:

DEU	Deutschland	TRGS 900 (Fassung 31.1.2018 ber.) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Databank of the social and Economic Concil of Netherlands (SER) Values, AF 2011:18
POL	Polska	ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 7 czerwca 2017 r
PRT	Portugal	Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diaro da Republica I 26: 2012-02-06
SVN	Slovenija	Uradni list Republike Slovenije 04.06.2015 (1602) - Pravilnik o spremembah in dopolnitvah Pravilnika o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2018

#### ACIDO CITRICO MONOIDRATO

Predicted no-effect concentration - PNEC			
Normal value in fresh water	0,44	mg/l	
Normal value in marine water	0,044	mg/l	
Normal value for fresh water sediment	34,6	mg/kg	
Normal value for marine water sediment	3,46	mg/kg	
Normal value of STP microorganisms	1000	mg/l	
Normal value for the terrestrial compartment	33,1	mg/kg	

PROPAN-2-OL						
Threshold Limit Val	lue					
Туре	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	500	200	1000	400	
MAK	DEU	500	200	1000	400	
VLA	ESP	500	200	1000	400	
VLEP	FRA			980	400	
WEL	GBR	999	400	1250	500	
OEL	NLD	650				
NDS	POL	900		1200		
MV	SVN	500	200			
TLV-ACGIH		492	200	983	400	
Predicted no-effect conc	centration - PNEC					
Normal value in fresh wa	ater			140,9	mg/l	

				лест	Board Code S-P4/2-2		
	MATERIAL SAFETY DATA SHEET						
NEW FADOR	Conforms to Reg. (EU) 830/2015						
Document n° Revision da	te Rev. N°	Edited by	Approved by	Filed by	Page		
58/09 21.09.20	18 4	RLAB	DG	RLAB	5 di 12		
Normal value in marine water			140.0	ma/l			
			140,9 552	mg/l mg/kg			
ormal value in marine water ormal value for fresh water sediment ormal value for marine water sediment				mg/l mg/kg mg/kg			
ormal value for fresh water sediment			552	mg/kg			
ormal value for fresh water sediment ormal value for marine water sediment			552 552	mg/kg mg/kg			
ormal value for fresh water sediment ormal value for marine water sediment ormal value for water, intermittent release	oning)		552 552 140,9	mg/kg mg/kg mg/l			

Effects on				Effects on			
consumers				workers			
Acute local	Acute systemic	Chronic local	Chronic	Acute local	Acute	Chronic local	Chronic
			systemic		systemic		systemic
			26 mg/kg				
			bw/d				
			89 mg/m3				500 mg/m3
			319 mg/kg bw/d				888 mg/kg bw/d
	Effects on consumers	consumers	Effects on consumers	Effects on consumers Acute local Acute systemic Chronic local Chronic systemic 26 mg/kg bw/d 89 mg/m3 319 mg/kg	Effects on consumers     Effects on workers       Acute local     Acute systemic     Chronic local     Chronic systemic       26 mg/kg bw/d     26 mg/kg bw/d       319 mg/kg	Effects on consumers     Effects on workers       Acute local     Acute systemic     Chronic local     Chronic systemic     Acute local     Acute systemic       26 mg/kg bw/d     26 mg/kg     bw/d     B9 mg/m3     319 mg/kg	Effects on consumers     Effects on workers       Acute local     Acute systemic     Chronic local systemic     Acute local systemic     Chronic local systemic       26 mg/kg bw/d     89 mg/m3     319 mg/kg     319 mg/kg

## 2-BROMO-2-NITROPROPAN-1,3-DIOL

Predicted no-effect concentration - PNEC			
Normal value in fresh water	0,01	mg/l	
Normal value in marine water	0,001	mg/l	
Normal value for fresh water sediment	0,041	mg/kg	
Normal value for marine water sediment	0,003	mg/kg	
Normal value for water, intermittent release	0,003	mg/l	
Normal value of STP microorganisms	0,43	mg/l	
Normal value for the terrestrial compartment	0,5	mg/kg	
Health - Derived no-effect level - DNEL / DMEL Effects on		Effects on	

	consumers				workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		1,1 mg/kg bw/d		0,35 mg/kg bw/d				
Inhalation	1,3 mg/m3	3,7 mg/m3	1,3 mg/m3	1,2 mg/m3	4,2 mg/m3	12,3 mg/m3	4,2 mg/m3	4,1 mg/m3
Skin	0,008 mg/cm2	4,2 mg/kg bw/d	0,008 mg/cm2	1,4 mg/kg bw/d	0,013 mg/cm2	7 mg/kg bw/d	0,013 mg/cm2	2,3 mg/kg bw/d

Туре	Country	TWA/8h		STEL/15min			
		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	36	10	72	20	SKIN	
MAK	DEU	36	10	72	20		
VLA	ESP	36	10	72	20		
VLEP	FRA	36	10	72	20		
WEL	GBR	36	10	72	20	SKIN	
VLEP	ITA	36	10	72	20	SKIN	
OEL	NLD	36	10	72	20	SKIN	
NDS	POL	36		72			
VLE	PRT	36	10	72	20		
OEL	EU	36	10	72	20		
TLV-ACGIH		71	20			SKIN	
Predicted no-effect con	centration - PNEC						
Normal value in fresh w	ater			0,1		mg/l	
Normal value in marine	water			0,01		mg/l	
Normal value for fresh v	vater sediment			0,01		mg/kg	
Normal value for marine water sediment			1,49		mg/kg		
Normal value for water, intermittent release			0,28		mg/l		
Normal value of STP m	icroorganisms			10		mg/l	
Normal value for the ter			0,239		mg/kg		

						Board Code S-P4/2-2
	MATERIA				1661	Board Date 05/2010
<b>NEW FADOR</b>	(	Conforms	to Reg. (EU) 8	30/2015		Board Rev. 1
Document n°	Revision date	Rev. N°	Edited by	Approved by	Filed by	Page
58/09	21.09.2018	4	RLAB	DG	RLAB	6 di 12

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		38 mg/kg bw/d		6,3 mg/kg bw/d		·		
Inhalation	18 mg/m3		3,2 mg/m3	45 mg/m3			36 mg/m3	91 mg/m3
Skin				0,52 mg/kg bw/d				1,04 mg/kg bw/d

#### Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

#### 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

#### HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

## SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

#### EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required. Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

#### ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

## **SECTION 9.** Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

Appearance Colour Odour Odour threshold pH Melting point / freezing point Initial boiling point Boiling range Flash point Evaporation rate Flammability (solid, gas) Lower flammability limit Upper flammability limit Lower explosive limit Upper explosive limit Vapour pressure	liquid blue characteristic Not available 2,2 Not available Not available Not available Not available Not available Not available Not available Not available Not available
Vapour pressure Vapour density	Not available Not available
Relative density	0,994 g/ml



#### Solubility Partition coefficient: n-octanol/water Auto-ignition temperature Decomposition temperature Viscosity Explosive properties Oxidising properties

soluble in water Not available Not available Not available Not available not classified as explosive, contains no explosive substances according to CLP Art. (14 (2)) the product is not an oxidizing substance

## 9.2. Other information

Information not available

# **SECTION 10. Stability and reactivity**

## 10.1. Reactivity

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

## 2-BROMO-2-NITROPROPAN-1,3-DIOL Decomposes on contact with: water, metals, strong bases.

## MORPHOLINE

On contact with: strong oxidising agents, reducing agents, strong acids, strong bases. May develop: heat.

#### 10.2. Chemical stability

The product is stable in normal conditions of use and storage.

#### 10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

### 10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

2-BROMO-2-NITROPROPAN-1,3-DIOL

Avoid exposure to: light, UV rays, moisture.

#### 10.5. Incompatible materials

Information not available

#### 10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

2-BROMO-2-NITROPROPAN-1,3-DIOL May develop: nitric oxide,carbon oxides,hydrobromic acid.

# **SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

#### 11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information Information not available Information on likely routes of exposure Information not available Delayed and immediate effects as well as chronic effects from short and long-term exposure Information not available

NEW FADOR	MATERI		<b>FETY D</b> to Reg. (EU) 8		IEET	Board Code S-P4/2-2 Board Date 05/2010 Board Rev. 1
Document n°	Revision date	Rev. N°	Edited by	Approved by	Filed by	Page
58/09	21.09.2018	4	RLAB	DG	RLAB	8 di 12

Interactive effects Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture: Not classified (no significant component) LD50 (Oral) of the mixture: Not classified (no significant component) LD50 (Dermal) of the mixture: Not classified (no significant component)

MORPHOLINE LD50 (Oral) 1050 mg/kg Rat LD50 (Dermal) 500 mg/kg Rabbit LC50 (Inhalation) 35,1 mg/l/1h Rat

2-BROMO-2-NITROPROPAN-1,3-DIOL LD50 (Oral) 254 mg/kg rat LD50 (Dermal) 64 mg/kg rat LC50 (Inhalation) 0,588 mg/l/4h rat

ACIDO CITRICO MONOIDRATO LD50 (Oral) 5400 mg/kg Mouse LD50 (Dermal) > 2000 mg/kg Rat

PROPAN-2-OL LD50 (Oral) 5,84 mg/kg Rat LD50 (Dermal) 16,4 ml/kg Rat LC50 (Inhalation) 72,6 mg/l/4h Rat

UNDECANOL, BRANCHED AND LINEAR, ETHOXYLATED, PROPOXYLATED (>=2.5 MOLES EO/PO) LD50 (Oral) > 2000 mg/kg

**SKIN CORROSION / IRRITATION** Does not meet the classification criteria for this hazard class SERIOUS EYE DAMAGE / IRRITATION Causes serious eye irritation RESPIRATORY OR SKIN SENSITISATION Does not meet the classification criteria for this hazard class GERM CELL MUTAGENICITY Does not meet the classification criteria for this hazard class CARCINOGENICITY Does not meet the classification criteria for this hazard class REPRODUCTIVE TOXICITY Does not meet the classification criteria for this hazard class STOT - SINGLE EXPOSURE Does not meet the classification criteria for this hazard class STOT - REPEATED EXPOSURE Does not meet the classification criteria for this hazard class **ASPIRATION HAZARD** Does not meet the classification criteria for this hazard class

## **SECTION 12. Ecological information**

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

## 12.1. Toxicity

MORPHOLINE	
LC50 - for Fish	179 mg/l/96h
EC50 - for Crustacea	45 mg/l/48h
EC50 - for Algae / Aquatic Plants	51 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	31 mg/l 72h

2-BROMO-2-NITROPROPAN-1,3-DIOL LC50 - for Fish

20 mg/l/96h Oncorhynchus mykiss

						Board Code S-P4/2-2	
	MATERIAL SAFETY DATA SHEET						
NEW FADOR	(	Conforms	to Reg. (EU) 8	30/2015		Board Rev. 1	
Document n°	Revision date	Page					
58/09	21.09.2018	4	RLAB	DG	RLAB	9 di 12	
EC50 - for Crustacea EC50 - for Algae / Aquat Chronic NOEC for Algae				1,6 mg/l/48 0,25 mg/l/7 0,08 mg/l	3h Daphnia ma 72h	gna	
ACIDO CITRICO MONO LC50 - for Fish EC50 - for Crustacea Chronic NOEC for Algae				> 100 mg/l > 50 mg/l/- 425 mg/l			
PROPAN-2-OL LC50 - for Fish EC50 - for Crustacea				9640 mg/l/ > 100 mg/l			
UNDECANOL, BRANCH (>=2.5 MOLES EO/PO) LC50 - for Fish EC50 - for Crustacea EC50 - for Algae / Aquat Chronic NOEC for Algae		DXYLATED,	PROPOXYLATEI	> 1 mg/l/96 > 1 mg/l/48 > 1 mg/l/72 1,7 mg/l	3h		
12.2. Persistence and de	egradability						
MORPHOLINE Solubility in water Rapidly degradable				1000 - 100	00 mg/l		
2-BROMO-2-NITROPRO Solubility in water Rapidly degradable							
ACIDO CITRICO MONO Rapidly degradable	DIDRATO						
PROPAN-2-OL Rapidly degradable							
UNDECANOL, BRANCH (>=2.5 MOLES EO/PO) Rapidly degradable	HED AND LINEAR, ETHO	DXYLATED,	PROPOXYLATEI	)			
12.3. Bioaccumulative po	otential						
MORPHOLINE Partition coefficient: n-oc BCF	ctanol/water			-2,55 < 2,8			
2-BROMO-2-NITROPRO Partition coefficient: n-oc BCF				0,22 3,16			
ACIDO CITRICO MONC BCF	DIDRATO			3,2			
PROPAN-2-OL Partition coefficient: n-oc	ctanol/water			0,05			
12.4. Mobility in soil							
MORPHOLINE Partition coefficient: soil/	/water			-0,6196			

NEW FADOR	MATERI	_	<b>FETY [</b> to Reg. (EU) 8	_	IEET	Board Code S-P4/2-2 Board Date 05/2010 Board Rev. 1
Document n°	Revision date	Rev. N°	Edited by	Approved by	Filed by	Page
58/09	21.09.2018	4	RLAB	DG	RLAB	10 di 12

## 12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

## 12.6. Other adverse effects

Information not available

## **SECTION 13. Disposal considerations**

## 13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

# **SECTION 14. Transport information**

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

## 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 applicable

#### 14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

## **SECTION 15. Regulatory information**

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

Seveso Category - Directive 2012/18/EC: None

#### Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product Point

3

NEW FADOR	MATERI	-	<b>FETY D</b> to Reg. (EU) 8	_	IEET	Board Code S-P4/2-2 Board Date 05/2010 Board Rev. 1
Document n°	Revision date	Rev. N°	Edited by	Approved by	Filed by	Page
58/09	21.09.2018	4	RLAB	DG	RLAB	11 di 12

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention: None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

Regulation (EC) No. 648/2004

## Ingredients according to Regulation (EC) No. 648/2004

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017) WGK 1: Low hazard to waters

## 15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

# **SECTION 16. Other information**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

#### LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road

NEW FADOR	MATERIAL SAFETY DATA SHEET Conforms to Reg. (EU) 830/2015					Board Code S-P4/2-2 Board Date 05/2010 Board Rev. 1
Document n°	Revision date	Rev. N°	Edited by	Approved by	Filed by	Page
58/09	21.09.2018	4	RLAB	DG	RLAB	12 di 12

- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

## GENERAL BIBLIOGRAPHY

- 1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
- 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
- 4. Regulation (EU) 2015/830 of the European Parliament
- 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
- 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
- 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EÚ) 2015/1221 (VII Atp. CLP) of the European Parliament
- 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
- 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
- 13. Regulation (EU) 2017/776 (X Atp. CLP)
- The Merck Index. 10th Edition Handling Chemical Safety
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- FCHA website
- Database of SDS models for chemicals Ministry of Health and ISS (Istituto Superiore di Sanità) Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.