



MATERIAL SAFETY DATA SHEET

Conforms to Reg. (EU) 878/2020

Issued on 15/01/2018

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

1.1. Product identifier

Code: F_370
Product name: Classic DISHWASHER GEL
UFI: 8S01-60U4-H00M-E22R

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

Identified Uses	Industrial	Professional	Consumer
laundry detergent	-	✓	✓

Uses Advised Against

Do not use for uses other than those indicated

1.3. Details of the supplier of the safety data sheet

Name: NEW FADOR S.r.l.
Full address: via Mario Calderara, 31
District and Country: 25018 Montichiari (BS)
Italia

Tel. +39 030961 243

www.newfador.it

e-mail address of the competent person
responsible for the Safety Data Sheet

info@newfador.it

1.4. Emergency telephone number

For urgent inquiries refer to
NEW FADOR S.r.l.
+39 030961 243
(08.30 - 17.30)

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Serious eye damage, category 1

H318

Causes serious eye damage.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



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Signal words: Danger

Hazard statements:

H318 Causes serious eye damage.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P280 Wear eye protection / face protection.

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

P310 Immediately call a POISON CENTER.

Contains: BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS
ALCOHOLS, C12-13, BRANCHED AND LINEAR, ETHOXYLATED
ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS

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

Less than 5% non-ionic surfactants, soap
5% or over but less than 15% anionic surfactants

perfumes

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 \geq than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration \geq 0.1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
BENZENESULFONIC ACID, C10-		



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13-ALKYL DERIVS., SODIUM SALTS

CAS 68411-30-3 $4 \leq x < 4,5$ Acute Tox. 4 H302,
Eye Dam. 1 H318,
Skin Irrit. 2 H315,
Aquatic Chronic 3 H412
LD50 Oral: 1080 mg/kg

EC 270-115-0

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REACH Reg. 01-2119489428-22

ALCOHOLS, C12-13, BRANCHED AND LINEAR, ETHOXYLATED

CAS 160901-19-9 $2 \leq x < 2,5$ Acute Tox. 4 H302,
Eye Dam. 1 H318,
Aquatic Chronic 3 H412
Eye Dam. 1 H318: $\geq 10\%$, Eye Irrit. 2 H319: $\geq 1\%$
LD50 Oral: >300 mg/kg

EC 931-954-4

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REACH Reg. 01-2119490233-42

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS

CAS 68891-38-3 $1 \leq x < 1,5$ Eye Dam. 1 H318,
Skin Irrit. 2 H315,
Aquatic Chronic 3 H412
Eye Dam. 1 H318: $\geq 10\%$, Eye Irrit. 2 H319: $\geq 5\%$

EC 500-234-8

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REACH Reg. 01-2119488639-16

Fatty acids, coco, potassium salts

CAS 61789-30-8 $1 \leq x < 1,5$ Eye Irrit. 2 H319,
Skin Irrit. 2 H315

EC 263-049-9

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

CAS 52-51-7 $0 \leq x < 0,05$ 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
STA Oral: 500 mg/kg, STA Dermal: 1100 mg/kg

EC 200-143-0

INDEX 603-085-00-8

REACH Reg. 01-2119980938-15

MORPHOLINE

CAS 110-91-8 $0 \leq x < 0,05$ Flam. Liq. 3 H226,
Acute Tox. 4 H302,
Acute Tox. 4 H312,
Acute Tox. 4 H332,
Skin Corr. 1B H314,
Eye Dam. 1 H318
LD50 Oral: 1050 mg/kg, STA Dermal: 1100 mg/kg, STA Inhalation vapours:
11 mg/l

EC 203-815-1

INDEX 613-028-00-9

REACH Reg. 01-2119496057-30

TOLUENE

CAS 108-88-3 $0 \leq x < 0,05$ Flam. Liq. 2 H225,
Repr. 2 H361d,



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Asp. Tox. 1 H304,
STOT RE 2 H373,
Skin Irrit. 2 H315,
STOT SE 3 H336

EC 203-625-9

INDEX 601-021-00-3

REACH Reg. 01-2119471310-51-

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

SECTION 4. First aid measures

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

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

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 self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).



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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

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

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. 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:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
CZE	Česká Republika	Nariadení vlády č. 41/2020 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
DNK	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019
ESP	España	Límites de exposición profesional para agentes químicos en España 2021



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FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS		
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ``σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιογόνους παράγοντες κατά την εργασία``»		
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről		
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnimkemičkim na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)		
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81		
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit		
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos		
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy		
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006		
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov		
SVN	Slovenija			
Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)				
GBR			United Kingdom	EH40/2005 Workplace exposure limit Directive (EU) 2019/1831; Directive 2000/39/EC; Directive 98/24/EC; Dir
EU			OEL EU	
			TLV-ACGIH	ACGIH 2021

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,268	mg/l
Normal value in marine water	0,027	mg/l
Normal value for fresh water sediment	8,1	mg/kg
Normal value for marine water sediment	6,8	mg/kg
Normal value for water, intermittent release	0,017	mg/l
Normal value of STP microorganisms	3,43	mg/l
Normal value for the terrestrial compartment	35	mg/kg

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers			Chronic systemic	Effects on workers			
	Acute local	Acute systemic	Chronic local		Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,425 mg/kg bw/d				
Inhalation			1,5	1,5 mg/m3			6	6 mg/m3
Skin				42,5 mg/kg bw/d				85 mg/kg bw/d

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,24	mg/l
Normal value in marine water	0,024	mg/l
Normal value for fresh water sediment	0,917	mg/kg
Normal value for marine water sediment	0,092	mg/kg
Normal value for water, intermittent release	0,071	mg/l
Normal value of STP microorganisms	10	g/l



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Normal value for the terrestrial compartment 7,5 mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				15 mg/kg bw/d				
Inhalation				52 mg/m3				175 mg/m3
Skin				1650 mg/kg bw/d				2750 mg/kg bw/d

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

Route of exposure	Effects on consumers				Effects on workers			
	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

MORPHOLINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	20				SKIN
TLV	CZE	35		70		SKIN
AGW	DEU	36	10	72	20	SKIN
MAK	DEU	36	10	72	20	
TLV	DNK	36	10			SKIN
VLA	ESP	36	10	72	20	
VLEP	FRA	36	10	72	20	
TLV	GRC	36	10	72	20	
AK	HUN	70		70		SKIN
GVI/KGVI	HRV	36	10	72	20	SKIN
VLEP	ITA	36	10	72	20	SKIN
TGG	NLD	36	10	72	20	SKIN
VLE	PRT	36	10	72	20	
NDS/NDSch	POL	36		72		
NPEL	SVK	36	10	72		



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WEL	GBR	36	10	72	20	SKIN
OEL	EU	36	10	72	20	
TLV-ACGIH		71	20			SKIN

Predicted no-effect concentration - PNEC	
Normal value in fresh water	0,1 mg/l
Normal value in marine water	0,01 mg/l
Normal value for fresh water 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 microorganisms	10 mg/l
Normal value for the terrestrial compartment	0,239 mg/kg

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	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

TOLUENE Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	150		300		
TLV	CZE	200		500		SKIN
AGW	DEU	190	50	760	200	SKIN
MAK	DEU	190	50	760	200	
TLV	DNK	94	25			SKIN
VLA	ESP	192	50	384	100	SKIN
VLEP	FRA	76,8	20	384	100	SKIN
TLV	GRC	192	50	384	100	
AK	HUN	190		760		
GVI/KGVI	HRV	192	50	384	100	SKIN
VLEP	ITA	192	50			SKIN
TGG	NLD	150		384		
VLE	PRT	192	50	384	100	SKIN
NDS/NDSch	POL	100		200		
TLV	ROU	192	50	384	100	SKIN
NPEL	SVK	192	50	384		SKIN
MV	SVN	192	50	384	100	SKIN
WEL	GBR	191	50	384	100	SKIN
OEL	EU	192	50	384	100	SKIN
TLV-ACGIH		75,4	20			



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Predicted no-effect concentration - PNEC								
Normal value in fresh water				0,68				mg/l
Normal value in marine water				0,68				mg/l
Normal value for fresh water sediment				16,39				mg/kg/d
Normal value for marine water sediment				16,39				mg/kg/d
Normal value for water, intermittent release				0,68				mg/l
Normal value of STP microorganisms				13,61				mg/l
Normal value for the food chain (secondary poisoning)				2,89				mg/kg soil dw
Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				8,13 mg/kg bw/d				
Inhalation	226 mg/m3	226 mg/m3	56,5 mg/m3	56,5 mg/m3	384 mg/m3	384 mg/m3	192 mg/m3	192 mg/m3
Skin				226 mg/kg bw/d				384 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 Regulation 2016/425 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.



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SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	blue	
Odour	characteristic	
Melting point / freezing point	Not available	
Initial boiling point	Not available	
Flammability	not flammable	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Flash point	Not available	
Auto-ignition temperature	Not available	
pH	8.5 ± 0.5	
Kinematic viscosity	Not available	
Dynamic viscosity	250 ± 100 mPa*s	
Solubility	soluble in water	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	Not available	
Density and/or relative density	Not available	
Relative vapour density	Not available	
Particle characteristics	Not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Explosive properties	not classified as explosive, contains no explosive substances according to CLP Art. (14 (2))
Oxidising properties	the product is not an oxidizing substance

SECTION 10. Stability and reactivity

10.1. Reactivity

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



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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.

TOLUENE

Avoid exposure to: light.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

TOLUENE

Risk of explosion on contact with: fuming sulphuric acid, nitric acid, silver perchlorate, nitrogen dioxide, non-metal halogenates, acetic acid, organic nitrocompounds. May form explosive mixtures with: air. May react dangerously with: strong oxidising agents, strong acids, sulphur.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

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

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

May develop: nitric oxide, carbon oxides, hydrobromic acid.

SECTION 11. Toxicological information

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

TOLUENE

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

TOLUENE

Toxic effect on the central and peripheral nervous system with encephalopathy and polyneuritis; irritating for the skin, conjunctiva, cornea and respiratory apparatus.

Interactive effects

TOLUENE

Certain drugs and other industrial products can interfere with the metabolism of the toluene.

ACUTE TOXICITY



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ATE (Inhalation) of the mixture: Not classified (no significant component)
ATE (Oral) of the mixture: >2000 mg/kg
ATE (Dermal) of the mixture: Not classified (no significant component)

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS

LD50 (Dermal): > 2000 mg/kg rat
LD50 (Oral): 1080 mg/kg rat

ALCOHOLS, C12-13, BRANCHED AND LINEAR, ETHOXYLATED

LD50 (Dermal): > 2000 mg/kg rabbit
LD50 (Oral): > 300 mg/kg rat

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS

LD50 (Dermal): > 2000 mg/kg rat
LD50 (Oral): > 2000 mg/kg rat

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

LD50 (Dermal): 64 mg/kg rat
STA (Dermal): 1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral): 254 mg/kg rat
LC50 (Inhalation mists/powders): 0,588 mg/l/4h rat

MORPHOLINE

LD50 (Dermal): 500 mg/kg Rabbit
STA (Dermal): 1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral): 1050 mg/kg Rat
LC50 (Inhalation vapours): 35,1 mg/l/1h Rat

TOLUENE

LD50 (Dermal): > 5000 mg/kg bw Rabbit
LD50 (Oral): > 5000 mg/kg bw Rat
LC50 (Inhalation vapours): 100 ppm human

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

Respiratory sensitization

Information not available

Skin sensitization

Information not available

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

TOLUENE

Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).

The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility

Information not available

Adverse effects on development of the offspring

Information not available

Effects on or via lactation

Information not available

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class



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Target organs

Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

TOLUENE

LC50 - for Fish	5,5 mg/l/96h <i>Oncorhynchus kisutch</i>
EC50 - for Crustacea	3,78 mg/l
EC50 - for Algae / Aquatic Plants	134 mg/l/3 h <i>Chlorella vulgaris</i> and <i>Chlamydomonas angulosa</i>
Chronic NOEC for Algae / Aquatic Plants	10 mg/l/72 h <i>Skeletonema costatum</i>

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

ALCOHOLS, C12-13, BRANCHED AND LINEAR, ETHOXYLATED

EC50 - for Algae / Aquatic Plants	> 1 mg/l/72h <i>Desmodesmus subspicatus</i>
EC10 for Crustacea	> 0,1 mg/l <i>Daphnia magna</i>

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

LC50 - for Fish	20 mg/l/96h <i>Oncorhynchus mykiss</i>
EC50 - for Crustacea	1,6 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	0,25 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	0,08 mg/l

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS

LC50 - for Fish	1,67 mg/l/96h
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EC50 - for Crustacea	2,9 mg/l/48h
EC50 - for Algae / Aquatic Plants	0,91 mg/l/72h
Chronic NOEC for Fish	0,23 mg/l 72d
Chronic NOEC for Crustacea	0,5 mg/l 7d
Chronic NOEC for Algae / Aquatic Plants	0,5 mg/l 96h

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS

LC50 - for Fish	> 1 mg/l/96h Danio rerio
EC50 - for Crustacea	7,2 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	27 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	0,14 mg/l 28d Oncorhynchus mykiss
Chronic NOEC for Crustacea	0,18 mg/l 21d Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	0,93 mg/l Desmodesmus subspicatus

12.2. Persistence and degradability

TOLUENE

Solubility in water	100 - 1000 mg/l
Rapidly degradable	

MORPHOLINE

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

ALCOHOLS, C12-13, BRANCHED AND LINEAR, ETHOXYLATED

Rapidly degradable

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

Solubility in water	286000 mg/l
Rapidly degradable	

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS

Rapidly degradable

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS

Rapidly degradable

12.3. Bioaccumulative potential

TOLUENE

Partition coefficient: n-octanol/water	2,73
BCF	90

MORPHOLINE

Partition coefficient: n-octanol/water	-2,55
BCF	< 2,8



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

Partition coefficient: n-octanol/water 0,22

BCF 3,16

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS

BCF 159

12.4. Mobility in soil

TOLUENE

Partition coefficient: soil/water 2,31

MORPHOLINE

Partition coefficient: soil/water -0,6196

ALCOHOLS, C12-13, BRANCHED AND LINEAR, ETHOXYLATED

Partition coefficient: soil/water 3,69

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS

Partition coefficient: soil/water 0,34

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 \geq than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. 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



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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 or ID 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. Maritime transport in bulk according to IMO instruments

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/EU: None

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

Product

Point 3 - 40

Contained substance

Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

Not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)



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None

Substances subject to exportation reporting pursuant to Regulation (EU) 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 2: Hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

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

Flam. Liq. 2	Flammable liquid, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
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.
H361d	Suspected of damaging the unborn child.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.



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H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
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
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 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: 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: Regulation (EC) 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: Time-weighted average exposure limit
- TWA STEL: Short-term 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) 2020/878 (II Annex of REACH Regulation)
 4. Regulation (EC) 790/2009 (I Atp. CLP) 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 (EU) 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)
 14. Regulation (EU) 2018/669 (XI Atp. CLP)
 15. Regulation (EU) 2019/521 (XII Atp. CLP)
 16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
 17. Regulation (EU) 2019/1148
 18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
 19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
- The Merck Index. - 10th Edition
 - Handling Chemical Safety



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- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA 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.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 08 / 09 / 10 / 11 / 12 / 15 / 16.