





# MATERIAL SAFETY DATA SHEET

Conforms to Reg. (EU) 878/2020

Board Code S-P4/2-2

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Precautionary statements:

<b>P101</b>	If medical advice is needed, have product container or label at hand.
<b>P102</b>	Keep out of reach of children.
<b>P280</b>	Wear protective gloves / eye protection / face protection.
<b>P305+P351+P338</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>P337+P313</b>	If eye irritation persists: Get medical advice / attention.

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

Less than 5% anionic surfactants, amphoteric surfactants

perfumes, Limonene

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)
<b>BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS</b> CAS 68411-30-3	$2,5 \leq x < 3$	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 INDEX - REACH Reg. 01-2119489428-22 <b>ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS</b> CAS 68891-38-3	$1,5 \leq x < 2$	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 INDEX - REACH Reg. 01-2119488639-16 <b>ACETIC ACID 0,048%</b> CAS 64-19-7	$0 \leq x < 0,05$	Flam. Liq. 3 H226, Skin Corr. 1A H314, Eye Dam. 1 H318, Classification note according to Annex VI to the CLP Regulation: B Skin Corr. 1A H314: $\geq$ 90%, Skin Corr. 1B H314: $\geq$ 25%, Skin Irrit. 2 H315: $\geq$ 10%, Eye Dam. 1 H318: $\geq$ 25%, Eye Irrit. 2 H319: $\geq$ 10%
EC 200-580-7 INDEX 607-002-00-6 REACH Reg. 01-2119475328-30		



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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

## ETHYL ACETATE

CAS 141-78-6

$0 \leq x < 0,05$

Flam. Liq. 2 H225,  
Eye Irrit. 2 H319,  
STOT SE 3 H336,  
EUH066

EC 205-500-4

INDEX 607-022-00-5

REACH Reg. 01-2119475103-46

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. Nariadení vlády, kterým se mění nariadení 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
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)



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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
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
EU		OEL EU
		TLV-ACGIH
		EH40/2005 Workplace exposure Directive (EU) 2022/431; Directive (EU) 2017/2398; Directive 2004/37/EC; Directive 2000/39/E
		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				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	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
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

## ACETIC ACID 0,048%

### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	25		37		
TLV	CZE	25		35		
AGW	DEU	25	10	50	20	



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MAK	DEU	25	10	50	20
TLV	DNK	25	10		
VLA	ESP	25	10	37	15
VLEP	FRA			25	10
TLV	GRC	25	10	37	15
AK	HUN	25		25	
GVI/KGVI	HRV	25	10		
VLE	PRT	25	10		
NDS/NDSch	POL	15		30	
NPEL	SVK	25	10		
MV	SVN	25	10		
OEL	EU	25	10	50	20
TLV-ACGIH		25	10	37	15

## Predicted no-effect concentration - PNEC

Normal value in fresh water				3,058	mg/l
Normal value in marine water				0,306	mg/l
Normal value for fresh water sediment				11,36	mg/kg
Normal value for marine water sediment				1,136	mg/kg
Normal value for water, intermittent release				30,58	mg/l
Normal value of STP microorganisms				85	mg/l
Normal value for the terrestrial compartment				0,47	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
Inhalation	25 mg/m3		25 mg/m3		25 mg/m3		25 mg/m3	

## 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

## ETHYL ACETATE

### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	800				
TLV	CZE	700		900		
AGW	DEU	1500	400	3000	800	
MAK	DEU	1500	400	3000	800	
TLV	DNK	540	150			
VLA	ESP	1460	400			
VLEP	FRA	1400	400			
TLV	GRC	1400	400			



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AK	HUN	1400		1400		
GVI/KGVI	HRV		200		400	
TGG	NLD	550		1100		
NDS/NDSch	POL	200		600		
NPEL	SVK	1500	400	3000		
WEL	GBR		200		400	
OEL	EU	734	200	1468	400	
TLV-ACGIH		1441	400			

## 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
Inhalation						1468 mg/m <sup>3</sup>		734 mg/m <sup>3</sup>

### 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 ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

## 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.

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	Orange	
Odour	characteristic	
Melting point / freezing point	not available	



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Initial boiling point	not available
Flammability	not available
Lower explosive limit	not available
Upper explosive limit	not available
Flash point	not available
Auto-ignition temperature	not available
Decomposition temperature	not available
pH	5.5 ± 0.5
Kinematic viscosity	not available
Dynamic viscosity	450 ± 100 mPa
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.

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

Decomposes on contact with: water, metals, strong bases.

#### ETHYL ACETATE

Decomposes slowly into acetic acid and ethanol under the effect of light, air and water.

### 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.

#### ACETIC ACID 0,048%

Risk of explosion on contact with: chromium (VI) oxide, potassium permanganate, sodium peroxide, perchloric acid, phosphorus chloride, hydrogen peroxide. May react dangerously with: alcohols, bromine pentafluoride, chlorosulphuric acid, dichromate-sulphuric acid, ethane diamine, ethylene glycol, potassium hydroxide, strong bases, sodium hydroxide, strong oxidising agents, nitric acid, ammonium nitrate, potassium tert-butoxide, oleum. Forms explosive mixtures with: air.

#### ETHYL ACETATE

Risk of explosion on contact with: alkaline metals, hydrides, oleum. May react violently with: fluorine, strong oxidising agents, chlorosulphuric acid, potassium tert-butoxide. Forms explosive mixtures with: air.

### 10.4. Conditions to avoid



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

ACETIC ACID 0,048%

Avoid exposure to: sources of heat, naked flames.

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

Avoid exposure to: light, UV rays, moisture.

ETHYL ACETATE

Avoid exposure to: light, sources of heat, naked flames.

## 10.5. Incompatible materials

ACETIC ACID 0,048%

Incompatible with: carbonates, hydroxides, phosphates, oxidising substances, bases.

ETHYL ACETATE

Incompatible with: acids, bases, strong oxidants, aluminium, nitrates, chlorosulphuric acid. Incompatible materials: plastic materials.

## 10.6. Hazardous decomposition products

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 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

Information not available

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

Information not available

#### Interactive effects

Information not available

#### ACUTE TOXICITY

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, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS

LD50 (Dermal): > 2000 mg/kg rat

LD50 (Oral): > 2000 mg/kg rat

#### ACETIC ACID 0,048%

LD50 (Dermal): 1060 mg/kg Rabbit

LD50 (Oral): 3310 mg/kg Rat

LC50 (Inhalation vapours): 11,4 mg/l/4h 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



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LC50 (Inhalation mists/powders):

0,588 mg/l/4h rat

## 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

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

## 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

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

#### 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

#### ACETIC ACID 0,048%

LC50 - for Fish	> 1000 mg/l/96h
EC50 - for Crustacea	> 300,82 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h

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

LC50 - for Fish	1,67 mg/l/96h
EC50 - for Crustacea	2,9 mg/l/48h



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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

ETHYL ACETATE  
Solubility in water > 10000 mg/l  
Rapidly degradable

2-BROMO-2-NITROPROPAN-1,3-DIOL  
Solubility in water 286000 mg/l  
Rapidly degradable

ACETIC ACID 0,048%  
Solubility in water > 10000 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

ETHYL ACETATE  
Partition coefficient: n-octanol/water 0,68  
BCF 30

2-BROMO-2-NITROPROPAN-1,3-DIOL  
Partition coefficient: n-octanol/water 0,22  
BCF 3,16

ACETIC ACID 0,048%  
Partition coefficient: n-octanol/water -0,17

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

BCF 159

### 12.4. Mobility in soil

ACETIC ACID 0,048%  
Partition coefficient: soil/water 1,153

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

Partition coefficient: soil/water 0,34

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#### 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

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

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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)

GLUTARALDEIDE  
REACH Reg.: 01-2119455549-26

Substances subject to authorisation (Annex XIV REACH)

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 1: Low 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:

<b>Flam. Liq. 2</b>	Flammable liquid, category 2
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>Skin Corr. 1A</b>	Skin corrosion, category 1A
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Aquatic Acute 1</b>	Hazardous to the aquatic environment, acute toxicity, category 1
<b>Aquatic Chronic 2</b>	Hazardous to the aquatic environment, chronic toxicity, category 2
<b>H225</b>	Highly flammable liquid and vapour.
<b>H302</b>	Harmful if swallowed.
<b>H312</b>	Harmful in contact with skin.
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H318</b>	Causes serious eye damage.



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<b>H319</b>	Causes serious eye irritation.
<b>H335</b>	May cause respiratory irritation.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H400</b>	Very toxic to aquatic life.
<b>H411</b>	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)
  21. Delegated Regulation (UE) 2021/849 (XVII 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
  - 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

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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.