


| | | | | | | |
|--|---|---------|---------------|---------|---------------|---------------------|
|  | 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° | Revision date | Rev. n° | Revision date | Rev. n° |
| 102/09 | 13.07.2018 | 7 | RLAB | DG | RLAB | 1 di 13 |

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

1.1. Product identifier

Code: **F_120 - 036_061**
 Product name: **PIATTI Mela e Aceto AMACASA**
 Size: **1250 ml**

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

| Identified Uses | Industrial | Professional | Consumer |
|-----------------------|------------|--------------|----------|
| dishwashing 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 M. Calderara 31**
 District and Country: **25018 Montichiari (BS)**
 Tel. **+39 030 961243**
 Fax **+39 030 962500**

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 **tel. +39 030 961243 (office hours)**

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 2015/830. 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:

Eye irritation, category 2 **H319** Causes serious eye irritation.
 Classified according to ICE-PH-15/0338 report

2.2. Label elements

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

Hazard pictograms:




Signal words: **Warning**

Hazard statements:

H319 Causes serious eye irritation.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P280 Wear protective gloves/ protective clothing / 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.
P337+P313 If eye irritation persists: Get medical advice / attention.

| | | | | | | |
|--|---|---------|---------------|---------|---------------|---------------------|
|  | <h1>Material Safety Data Sheet</h1> <p>Conforms to Reg. (EU) 830/2015</p> | | | | | Board Code S-P4/2-2 |
| | | | | | | Board Date 05/2010 |
| | | | | | | Board Rev. 1 |
| Document n° | Revision date | Rev. n° | Revision date | Rev. n° | Revision date | Rev. n° |
| 102/09 | 13.07.2018 | 7 | RLAB | DG | RLAB | 2 di 13 |

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

Less than 5% amphoteric surfactants
 5% or over but less than 15% anionic 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 greater than 0,1%.

SECTION 3. Composition/information on ingredients


3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

| Identification | x = Conc. % | Classification 1272/2008 (CLP) |
|---|--------------|--|
| BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS CAS 68411-30-3 EC 270-115-0 INDEX - Reg. no. 01-2119489428-22 | 4,5 ≤ x < 5 | Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Chronic 3 H412 |
| ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS CAS 68891-38-3 EC 500-234-8 INDEX - Reg. no. 01-2119488639-16 | 3 ≤ x < 3,5 | Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Chronic 3 H412 |
| ACETIC ACID CAS 64-19-7 EC 200-580-7 INDEX 607-002-00-6 Reg. no. 01-2119475328-30 | 0 ≤ 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 |
| 2-BROMO-2-NITROPROPAN-1,3-DIOL CAS 52-51-7 EC 200-143-0 INDEX 603-085-00-8 Reg. no. 01-2119980938-15 | 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 |
| ETHYL ACETATE CAS 141-78-6 | 0 ≤ x < 0,05 | Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066 |

| | | | | | | |
|--|---|---------|---------------|---------|---------------|---------------------|
|  | 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° | Revision date | Rev. n° | Revision date | Rev. n° |
| 102/09 | 13.07.2018 | 7 | RLAB | DG | RLAB | 3 di 13 |

EC 205-500-4
 INDEX 607-022-00-5
 Reg. no. 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).

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. If the product is flammable, use explosion-proof equipment. 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.

| | | | | | | |
|--|---|---------|---------------|---------|---------------|---------------------|
|  | <h1>Material Safety Data Sheet</h1> <p>Conforms to Reg. (EU) 830/2015</p> | | | | | Board Code S-P4/2-2 |
| | | | | | | Board Date 05/2010 |
| | | | | | | Board Rev. 1 |
| Document n° | Revision date | Rev. n° | Revision date | Rev. n° | Revision date | Rev. n° |
| 102/09 | 13.07.2018 | 7 | RLAB | DG | RLAB | 4 di 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:

| | | |
|-----|----------------|---|
| 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 |
| NLD | Nederland | Databank of the social and Economic Council 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 - Diário 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 2017 |

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 |
|-----------------------------|------|------|



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° | Revision date | Rev. n° | Revision date | Rev. n° |
| 102/09 | 13.07.2018 | 7 | RLAB | DG | RLAB | 5 di 13 |

| | | |
|--|-------|-------|
| 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/m ³ | | | | 175 mg/m ³ |
| Skin | | | | 1650 mg/kg bw/d | | | | 2750 mg/kg bw/d |

ACETIC ACID

Threshold Limit Value

| Type | Country | TWA/8h | | STEL/15min | |
|-----------|---------|-------------------|-----|-------------------|-----|
| | | mg/m ³ | ppm | mg/m ³ | ppm |
| AGW | DEU | 25 | 10 | 50 | 20 |
| MAK | DEU | 25 | 10 | 50 | 20 |
| VLA | ESP | 25 | 10 | 37 | 15 |
| VLEP | FRA | | | 25 | 10 |
| MAC | NLD | | 10 | | |
| NDS | POL | 15 | | 30 | |
| VLE | PRT | 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/m ³ | | 25 mg/m ³ | | 25 mg/m ³ | | 25 mg/m ³ | |

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 | | | | |



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° | Revision date | Rev. n° | Revision date | Rev. n° |
|-------------|---------------|---------|---------------|---------|---------------|---------|
| 102/09 | 13.07.2018 | 7 | RLAB | DG | RLAB | 6 di 13 |

| | 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 | |
|-----------|---------|--------|-----|------------|-----|
| | | mg/m3 | ppm | mg/m3 | ppm |
| AGW | DEU | 1500 | 400 | 3000 | 800 |
| MAK | DEU | 1500 | 400 | 3000 | 800 |
| VLA | ESP | 1460 | 400 | | |
| VLEP | FRA | 1400 | 400 | | |
| WEL | GBR | | 200 | | 400 |
| OEL | NLD | 550 | | 1100 | |
| NDS | POL | 200 | | 600 | |
| 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 | Chronic local | Chronic systemic |
| Inhalation | | | | | 1468 mg/m3 | | 734 mg/m3 |

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 a hood visor or protective visor combined with airtight 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 B 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

| | | | | | | |
|--|---|---------|---------------|---------|---------------|---------------------|
|  | <h1 style="margin: 0;">Material Safety Data Sheet</h1> <p style="margin: 0;">Conforms to Reg. (EU) 830/2015</p> | | | | | Board Code S-P4/2-2 |
| | | | | | | Board Date 05/2010 |
| | | | | | | Board Rev. 1 |
| Document n° | Revision date | Rev. n° | Revision date | Rev. n° | Revision date | Rev. n° |
| 102/09 | 13.07.2018 | 7 | RLAB | DG | RLAB | 7 di 13 |

9.1. Information on basic physical and chemical properties

| | |
|--|--|
| Appearance | liquid |
| Colour | orange limpid |
| Odour | characteristic |
| Odour threshold | Not available |
| pH | 5,50 |
| Melting point / freezing point | Not available |
| Initial boiling point | Not available |
| Boiling range | Not available |
| Flash point | Not available |
| Evaporation rate | Not available |
| Flammability (solid, gas) | Not available |
| Lower inflammability limit | Not available |
| Upper inflammability limit | Not available |
| Lower explosive limit | Not available |
| Upper explosive limit | Not available |
| Vapour pressure | Not available |
| Vapour density | Not available |
| Relative density | 1,012 g/ml |
| Solubility | soluble in water |
| Partition coefficient: n-octanol/water | Not available |
| Auto-ignition temperature | Not available |
| Decomposition temperature | Not available |
| Viscosity | 500 |
| 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 |

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.

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

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

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

ACETIC ACID

Avoid exposure to: sources of heat, naked flames.

| | | | | | | |
|--|---|---------|---------------|---------|---------------|---------------------|
|  | 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° | Revision date | Rev. n° | Revision date | Rev. n° |
| 102/09 | 13.07.2018 | 7 | RLAB | DG | RLAB | 8 di 13 |

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
 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

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

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:

Not classified (no significant component)

LD50 (Oral) of the mixture:

>2000 mg/kg

LD50 (Dermal) of the mixture:

Not classified (no significant component)

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

ACETIC ACID

LD50 (Oral) 3310 mg/kg Rat

LD50 (Dermal) 1060 mg/kg Rabbit

LC50 (Inhalation) 11,4 mg/l/4h Rat

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

LD50 (Oral) 1080 mg/kg rat

LD50 (Dermal) > 2000 mg/kg rat

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

LD50 (Oral) > 2000 mg/kg rat

LD50 (Dermal) > 2000 mg/kg 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

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

| | | | | | | |
|--|---|---------|---------------|---------|---------------|---------------------|
|  | <h1 style="margin: 0;">Material Safety Data Sheet</h1> <p style="margin: 0;">Conforms to Reg. (EU) 830/2015</p> | | | | | Board Code S-P4/2-2 |
| | | | | | | Board Date 05/2010 |
| | | | | | | Board Rev. 1 |
| Document n° | Revision date | Rev. n° | Revision date | Rev. n° | Revision date | Rev. n° |
| 102/09 | 13.07.2018 | 7 | RLAB | DG | RLAB | 9 di 13 |

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

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

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

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


| | |
|---------------------|--------------|
| 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

| | | | | | | |
|--|---|---------|---------------|---------|---------------|---------------------|
|  | 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° | Revision date | Rev. n° | Revision date | Rev. n° |
| 102/09 | 13.07.2018 | 7 | RLAB | DG | RLAB | 10 di 13 |

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
 Partition coefficient: n-octanol/water -0,17

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS
 BCF 159

12.4. Mobility in soil

ACETIC ACID
 Partition coefficient: soil/water 1,153

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 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

| | | | | | | |
|--|---|---------|---------------|---------|---------------|---------------------|
|  | <h1 style="margin: 0;">Material Safety Data Sheet</h1> <p style="margin: 0;">Conforms to Reg. (EU) 830/2015</p> | | | | | Board Code S-P4/2-2 |
| | | | | | | Board Date 05/2010 |
| | | | | | | Board Rev. 1 |
| Document n° | Revision date | Rev. n° | Revision date | Rev. n° | Revision date | Rev. n° |
| 102/09 | 13.07.2018 | 7 | RLAB | DG | RLAB | 11 di 13 |

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

Substances in Candidate List (Art. 59 REACH)

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

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 (VwVwS 2005)

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. 4 | Acute toxicity, category 4 |

| | | | | | | |
|--|---|---------|---------------|---------|---------------|---------------------|
|  | <h1>Material Safety Data Sheet</h1> <p>Conforms to Reg. (EU) 830/2015</p> | | | | | Board Code S-P4/2-2 |
| | | | | | | Board Date 05/2010 |
| | | | | | | Board Rev. 1 |
| Document n° | Revision date | Rev. n° | Revision date | Rev. n° | Revision date | Rev. n° |
| 102/09 | 13.07.2018 | 7 | RLAB | DG | RLAB | 12 di 13 |


| | |
|--------------------------|--|
| Skin Corr. 1A | Skin corrosion, category 1A |
| 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 |
| Aquatic Chronic 3 | Hazardous to the aquatic environment, chronic toxicity, category 3 |
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| 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. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- 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 (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

| | | | | | | |
|--|---|---------|---------------|---------|---------------|---------------------|
|  | 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° | Revision date | Rev. n° | Revision date | Rev. n° |
| 102/09 | 13.07.2018 | 7 | RLAB | DG | RLAB | 13 di 13 |

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

- 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.