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

- **1.1 Product identifier**
  - Trade name: SÜDRANOL® BEE

- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
  - No further relevant information available.
  - Application of the substance / the mixture: Additive

- **1.3 Details of the supplier of the safety data sheet**
  - Manufacturer/Supplier:
    Süddeutsche Emulsions-Chemie GmbH
    Rhenanistraße 46
    D-68199 Mannheim, Germany
    E-Mail: info@munzing.com
    Tel.: +49 (0) 621/84487-0

- **Further information obtainable from:**
  - Product Safety Department
  - E-mail (MSDS): mds@munzing.com

- **1.4 Emergency telephone number:** For Chemical Emergencies: CHEMTREC: +1 703 741 5970

---

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
  - Classification according to Regulation (EC) No 1272/2008
    - Eye Dam. 1 H318 Causes serious eye damage.

- **2.2 Label elements**
  - Labelling according to Regulation (EC) No 1272/2008
    - The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**

  ![GHS05](image-url)

- **Signal word** Danger

- **Hazard-determining components of labelling:**
  - Alcohols, C16-18 and C18 unsaturated, ethoxylated

- **Hazard statements**
  - H318 Causes serious eye damage.

- **Precautionary statements**
  - 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/doctor.

- **Additional information:**
  - Contains 1,2-benzisothiazol-3(2H)-one, 2-methyl-2H-isothiazol-3-one. Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.

- **2.3 Other hazards**
  - Results of PBT and vPvB assessment
    - PBT: None.
    - vPvB: None.

(Contd. on page 2)
SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

- Dangerous components:

| CAS: 68920-66-1 | Alcohol, C16-18 and C18 unsaturated, ethoxylated | 3-5% |
| NLP: 500-236-9 | Eye Dam. 1, H318; Acute Tox. 4, H302 |

| CAS: 52-51-7 | 2-bromo-2-nitropropane-1,3-diol | <0.05% |
| EINECS: 200-143-0 | Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=10); Aquatic Chronic 2, H411; Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335 |
| Reg.nr.: 01-2119980938-15 |

SECTION 4: First aid measures

- 4.1 Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- After inhalation:
  Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
- After skin contact:
  Immediately wash with water and soap and rinse thoroughly.
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After eye contact:
  Rinse opened eye for several minutes under running water. If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed: No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed: No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents:
  CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  Use fire extinguishing methods suitable to surrounding conditions.
- For safety reasons unsuitable extinguishing agents: Water with full jet

- 5.2 Special hazards arising from the substance or mixture: No further relevant information available.

- 5.3 Advice for firefighters
- Protective equipment: Do not inhale explosion gases or combustion gases.
- Additional information
  Product contains water and is non-combustible.
  Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures: Wear protective clothing.
- 6.2 Environmental precautions:
  Dilute with plenty of water.
  Do not allow to enter sewers/surface or ground water.
- 6.3 Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

(Contd. on page 3)
Trade name: SÜDRANOL® BEE

(Contd. of page 2)

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling Keep away from heat and direct sunlight.
· 7.2 Conditions for safe storage, including any incompatibilities
  · Storage:
  · Requirements to be met by storerooms and receptacles: Store in a cool location.
  · Information about storage in one common storage facility: Not required.
  · Further information about storage conditions:
    - Protect from frost.
    - Store in cool, dry conditions in well sealed receptacles.
· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.
· 8.1 Control parameters
  · Ingredients with limit values that require monitoring at the workplace:
    The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  · Additional information: The lists valid during the making were used as basis.
· 8.2 Exposure controls
  · Personal protective equipment:
    · General protective and hygienic measures:
      The usual precautionary measures are to be adhered to when handling chemicals.
      Avoid contact with the eyes and skin.
    · Respiratory protection: Use suitable respiratory protective device only when aerosol or mist is formed.
    · Protection of hands:
      Only use chemical-protective gloves with CE-labelling of category III.
      The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
      Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
    · Material of gloves
      Nitrile rubber, NBR
      Recommended thickness of the material: ≥ 0.4 mm
      The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.
    · Penetration time of glove material
      For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).

(Contd. on page 4)
Safety data sheet
according to 1907/2006/EC, Article 31


Trade name: SÜDRANOL® BEE

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore, a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

- Eye protection: Safety glasses
- Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: Fluid
      - Colour: Yellowish
      - Odour: Specific type
      - Odour threshold: Not determined.
  - pH-value (20 g/l) at 20 °C: ≈ 9.0 (DIN ISO 976)
  - Change in condition
    - Melting point/freezing point: Undetermined.
    - Initial boiling point and boiling range: ≈ 100 °C (Water)
  - Flash point: Not applicable.
  - Flammability (solid, gas): Not applicable.
  - Decomposition temperature: Not determined.
  - Auto-ignition temperature: Product is not selfigniting.
  - Explosive properties:
    - Explosions limits: Product does not present an explosion hazard.
    - Oxidising properties: None.
  - Vapour pressure: Not determined.
  - Density at 20 °C: ≈ 0.98 g/cm³ (DIN EN ISO 2811-1)
  - Evaporation rate: Not determined.
  - Solubility in / Miscibility with water: Fully miscible.
  - Partition coefficient: n-octanol/water: Not determined.
  - Viscosity:
    - Dynamic at 20 °C: < 1000 mPas (DIN EN ISO 3219)
    - Kinematic: Not determined.
  - Solvent content:
    - Water: ≈ 80 %
  - 9.2 Other information
    - No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity: No further relevant information available.

(Contd. on page 5)
SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.

- LD/LC50 values relevant for classification:

| CAS: 68920-66-1 Alcohols, C16-18 and C18 unsaturated, ethoxylated |
| Oral | LD50 | >200 mg/kg (rat) |

| CAS: 52-51-7 2-bromo-2-nitropropane-1,3-diol |
| Oral | LD50 | 307 mg/kg (rat) |
| Dermal | LD50 | >2,000 mg/kg (rat) |

- Primary irritant effect:
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Causes serious eye damage.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- 12.1 Toxicity

- Aquatic toxicity:

| CAS: 52-51-7 2-bromo-2-nitropropane-1,3-diol |
| EC50 | 0.4-2.8 mg/l (alga) (green alga / 72 h) |
| | 1.4 mg/l (daphnia) (Daphnia magna / 48 h) |
| LC50 | 41.2 mg/l (fish) (Oncorhynchus mykiss / 96 h) |

- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.

- Ecotoxic effects:
- Behaviour in sewage processing plants:
  Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. Do not release untreated into natural waters.
- Additional ecological information:
- General notes:
  Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
**Trade name:** SÜDRANOL® BEE

(Contd. of page 5)

- **12.5 Results of PBT and vPvB assessment**
  According to Annex XIV of Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification.
- **12.6 Other adverse effects** No further relevant information available.

---

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
  - **Recommendation**
    Must not be disposed together with household garbage. Do not allow product to reach sewage system.
  - **Uncleaned packaging:**
    - **Recommendation:** Disposal must be made according to official regulations.
    - **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

---

**SECTION 14: Transport information**

- **14.1 UN-Number**
  - ADR/RID/ADN, ADN, IMDG, IATA Void

- **14.2 UN proper shipping name**
  - ADR/RID/ADN, ADN, IMDG, IATA Void

- **14.3 Transport hazard class(es)**
  - ADR/RID/ADN, ADN, IMDG, IATA Void
  - Class Void

- **14.4 Packing group**
  - ADR/RID/ADN, IMDG, IATA Void

- **14.5 Environmental hazards:**
  - **Marine pollutant:** No

- **14.6 Special precautions for user**
  Not applicable.

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**
  Not applicable.

- **Transport/Additional information:**
  Not a dangerous good to the above specifications.

- **UN "Model Regulation":** Void

---

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - Directive 2012/18/EU
  - Named dangerous substances - ANNEX I None of the ingredients is listed.
  - REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
  - National regulations:
    - **Waterhazard class:** Water hazard class I (German AwSV, Self-assessment): slightly hazardous for water.

(Contd. on page 7)
15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
  - H302 Harmful if swallowed.
  - H312 Harmful in contact with skin.
  - H315 Causes skin irritation.
  - H318 Causes serious eye damage.
  - H335 May cause respiratory irritation.
  - H400 Very toxic to aquatic life.
  - H411 Toxic to aquatic life with long lasting effects.

- Department issuing SDS:
  - Product Safety Department
  - E-Mail: msds@munzing.com

- Abbreviations and acronyms:
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Acute Tox. 4: Acute toxicity – Category 4
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Dam. 1: Serious eye damage/eye irritation – Category 1
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
  - Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
  - Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2