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

1.1 Product identifier

Trade name: AGITAN® DF 6054

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: Defoamers, Anti-foaming agent

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
MÜNZING CHEMIE GmbH
Münstingstrasse 2
74232 Abstatt, Germany
E-Mail: info@munzing.com
Tel.: +49 7131 987-100

Further information obtainable from:
Product Safety Department
E-mail (MSDS): msds@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
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

The product is classified and labelled according to the CLP regulation.

Hazard pictograms: Void
Signal word: Void

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:
Contains Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1).
May produce an allergic reaction.

2.3 Other hazards

Results of PBT and vPvB assessment:
PBT: None.
vPvB: None.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description: Aqueous emulsion of silicones and surfactants.

(Contd. on page 2)
Dangerous components:

<table>
<thead>
<tr>
<th>CAS: 9005-00-9</th>
<th>Stearyl alcohol, ethoxylated</th>
</tr>
</thead>
<tbody>
<tr>
<td>NLP: 500-017-8</td>
<td>Aquatic Acute 1, H400; Aquatic Chronic 2, H411</td>
</tr>
<tr>
<td>Reg.nr.: 01-2119977092-34</td>
<td>3-&lt;5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 52-51-7</th>
<th>2-bromo-2-nitropropane-1,3-diol</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 200-143-0</td>
<td>Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=10); Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; STOT SE 3, H335</td>
</tr>
<tr>
<td>Reg.nr.: 01-2119980938-15</td>
<td>&lt;0,05%</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: 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: Use fire extinguishing methods suitable to surrounding conditions.

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.
- Use respiratory protective device against the effects of fumes/dust/aerosol.

6.2 Environmental precautions:
- Inform respective authorities in case of seepage into water course or sewage system.
- 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).

6.4 Reference to other sections
- No dangerous substances are released.
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.
SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**: No special precautions are necessary if used correctly.
- **7.2 Conditions for safe storage, including any incompatibilities**
  - **Storage**:
    - Requirements to be met by storerooms and receptacles: No special requirements.
    - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: Protect from frost.
- **7.3 Specific end use(s)**: No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
  - Additional information about design of technical facilities: No further data; see item 7.
  - 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.

**DNELs**

| CAS: 9005-00-9 Stearyl alcohol, ethoxylated | Consumer, long-term exposure, systemic effects | 25 mg/kg bw/day (human) |
| Oral | Consumer, long-term exposure, systemic effects | 0.0019 mg/l (not specified) |
| Dermal | Worker, long-term exposure, systemic effects | 2080 mg/kg bw/day (human) |
| Inhalative | Worker, long-term exposure, systemic effects | 1250 mg/kg bw/day (human) |
| | Consumer, long-term exposure, local effects | 90 mg/m³ (human) |

**PNECs**

| CAS: 9005-00-9 Stearyl alcohol, ethoxylated | Fresh water | 0.0019 mg/l (not specified) |
| fresh water | Marine water | 0.0019 mg/l (not specified) |
| sediment (fresh water) | 81.1 mg/kg (not specified) |
| sediment (marine water) | 81.1 mg/kg (not specified) |
| sewage treatment plant | 1.4 mg/l (not specified) |

- **Additional information**: The lists valid during the making were used as basis.

- **8.2 Exposure controls**
  - Personal protective equipment:
    - General protective and hygienic measures: Wash hands before breaks and at the end of work.
    - 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.
    - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
    - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
  - Material of gloves:
    - Nitrile rubber, NBR
    - Butyl rubber, BR
    - Neoprene gloves

(Contd. of page 4)
Recommended thickness of the material: ≥ 0.5 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 16523-1:2015: Level 6). The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Goggles recommended during refilling
- **Body protection:** Protective work clothing

**SECTION 9: Physical and chemical properties**

- **9.1 Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:** Fluid
    - **Colour:** White
    - **Odour:** Mild
    - **Odour threshold:** Not determined.
  - **pH-value at 20 °C:** ≈ 7 (DIN ISO 976)
  - **Change in condition**
    - **Melting point/freezing point:** Undetermined.
    - **Initial boiling point and boiling range:** Undetermined.
  - **Flash point:** > 100 °C (DIN EN ISO 2719)
  - **Flammability (solid, gas):** Not applicable.
  - **Ignition temperature:** Not determined.
  - **Decomposition temperature:** Not determined.
  - **Auto-ignition temperature:** Product is not self-igniting.
  - **Explosive properties:** Product does not present an explosion hazard.
  - **Explosion limits:**
    - **Lower:** Not determined.
    - **Upper:** Not determined.
  - **Oxidising properties**
    - **None.**
  - **Vapour pressure:** Not determined.
  - **Density at 20 °C:** ≈ 1.0 g/cm³ (DIN EN ISO 2811-1)
  - **Relative density**
    - **Not determined.**
  - **Vapour density**
    - **Not determined.**
  - **Evaporation rate**
    - **Not determined.**
  - **Solubility in / Miscibility with water:** Emulsifiable.

(Contd. on page 5)
Trade name: AGITAN® DF 6054

- Partition coefficient: n-octanol/water: Not determined.
- Viscosity:
  Dynamic at 20 °C: < 700 mPas (DIN EN ISO 3219)
  Kinematic: Not determined.
- Solvent separation test: ≤3%
- 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.
- 10.2 Chemical stability
- 10.3 Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.4 Conditions to avoid: No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

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: 9005-00-9 Stearyl alcohol, ethoxylated
  Oral LD50 >21000 mg/kg (rat)
  Dermal LD50 >2000 mg/kg (rat)
  CAS: 52-51-7 2-bromo-2-nitropropane-1,3-diol
  Oral LD50 307 mg/kg (rat)
  Dermal LD50 >2000 mg/kg (rat)
- Primary irritant effect:
  Skin corrosion/irritation Based on available data, the classification criteria are not met.
  Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Additional toxicological information:
  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:

<table>
<thead>
<tr>
<th>CAS: 9005-00-9 Stearyl alcohol, ethoxylated</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 3.6 mg/l (fish) (Oncorhynchus mykiss / 96 h)</td>
</tr>
</tbody>
</table>

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

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.

Ecotoxicological effects:

Remark: Toxic for fish

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:

Due to available data on eliminability/decomposition and bioaccumulation potential a prolonged damage of the environment is unlikely.

According to the criteria of the EU-classification and labelling "dangerous for environment" (93/21/EWG) the substance/ the product has to be classified as non-hazardous for the environment.

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

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.

European waste catalogue

16 03 06 organic wastes other than those mentioned in 16 03 05

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
Trade name: AGITAN® DF 6054

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:
- 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

- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II
- None of the ingredients is listed.

- National regulations:
- Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

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 relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

(Contd. on page 8)
| 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) |
| DNEL: Derived No-Effect Level (REACH) |
| PNEC: Predicted No-Effect Concentration (REACH) |
| 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 |
| Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3 |