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

1.1 Product identifier

Trade name: AGITAN® DF 581 B

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 Deformers, Anti-foaming agent

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
MÜNZING CHEMIE GmbH
Münzingstrasse 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
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

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

GHS08

Signal word Danger

Hazard-determining components of labelling:
Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, <2% aromatics

Hazard statements
H304 May be fatal if swallowed and enters airways.

Precautionary statements
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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.

<table>
<thead>
<tr>
<th>EC number: 926-141-6</th>
<th>Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics</th>
<th>Asp. Tox. 1, H304</th>
<th>75-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reg.nr.: 01-2119456620-43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Additional information: For the wording of the listed hazard phrases refer to section 16.

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; consult doctor in case of complaints.
  - After skin contact: Immediately wash with water and soap and rinse thoroughly.
  - After eye contact:
    - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - 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:
    - 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: Can form explosive gas-air mixtures.

- 5.3 Advice for firefighters
  - Protective equipment: Do not inhale explosion gases or combustion gases.

- Additional information
  - Cool endangered receptacles with water spray.
  - 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.
  - Ensure adequate ventilation
  - Particular danger of slipping on leaked/spilled product.

- 6.2 Environmental precautions: 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
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
SECTION 7: Handling and storage

7.1 Precautions for safe handling
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.

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: Store away from oxidising agents.
Further information about storage conditions: 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:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not inhale gases / fumes / aerosols.

Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands:
Protective gloves
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
Butyl rubber, BR
Recommended thickness of the material: ≥ 0.5 mm
Neoprene gloves
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 can not be calculated in advance and has therefore to be checked prior to the application.
Vapour mixtures are possible.

Not determined.

 according to 1907/2006/EC, Article 31

Trade name: AGITAN® DF 581 B

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). 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. The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

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: Mineral-oil-like
Odour threshold: Not determined.

pH-value (20 g/l) at 20 °C: ≈ 7 (DIN ISO 976)

Change in condition
Melting point/freezing point: Undetermined.
Initial boiling point and boiling range: > 180 °C

Flash point: > 70 °C (DIN EN ISO 2719)

Flammability (solid, gas): Not applicable.

Ignition temperature: Not determined.

Decomposition temperature: > 200 °C

Auto-ignition temperature: Product is not selfigniting.

Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:
Lower: ≈ 0.6 Vol % (01-2119456620-43)
Upper: ≈ 7.0 Vol % (01-2119456620-43)

Oxidising properties: None.

Vapour pressure: Not determined.

Density at 20 °C: ≈ 0.83 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.

Partition coefficient: n-octanol/water: Not determined.

Viscosity:
Dynamic at 20 °C: ≈ 300 mPas (DIN EN ISO 3219)
Kinematic at 40 °C: < 20.5 mm²/s (DIN EN ISO 51562)

(Contd. of page 3)

(Contd. on page 5)
SECTION 10: Stability and reactivity

- 10.1 Reactivity  No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:
  No decomposition if used and stored according to specifications.
- 10.3 Possibility of hazardous reactions
  Flammable vapour-air mixtures may develop if stored in large receptacles and above room temperature. Can react violently with oxygen rich (oxidising) material. Danger of Explosion.
- 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:
  Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, <2% aromatics
<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>&gt;5,000 mg/kg (rat) (OECD 401)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5,000 mg/kg (rabbit) (OECD 402)</td>
</tr>
</tbody>
</table>
- 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.
- 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
  May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity:
  Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, <2% aromatics
<table>
<thead>
<tr>
<th>Comp.</th>
<th>Concentration (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LL0</td>
<td>1,000 mg/l (fish) (Oncorhyncus mykiss / 96 h)</td>
</tr>
<tr>
<td>EL0</td>
<td>1,000 mg/l (algae) (green alga / 72 h)</td>
</tr>
<tr>
<td></td>
<td>1,000 mg/l (daphnia) (Daphnia magna / 48 h)</td>
</tr>
</tbody>
</table>
- 12.2 Persistence and degradability  A part of the components is heavily biodegradable.
- 12.3 Bioaccumulative potential  No further relevant information available.
- 12.4 Mobility in soil  No further relevant information available.
Trade name: AGITAN® DF 581 B

· 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:
      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 1 (German Regulation) (Self-assessment): slightly hazardous for water
      Do not allow undiluted product or large quantities of it 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

· 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, 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.
**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:
    - Water hazard class: Water hazard class 1 (German AnSV, Self-assessment): slightly 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
  H304 May be fatal if swallowed and enters airways.

- 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
  Asp. Tox. 1: Aspiration hazard – Category 1