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

1.1 Product identifier

· Trade name: AGITAN® 703 N

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
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): 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

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

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

GHS09

· Signal word Void

· Hazard statements

H411 Toxic to aquatic life with long lasting effects.

· Precautionary statements

P273 Avoid release to the environment.
P391 Collect spillage.
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.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

· Description:
hydrocarbons
hydrophobic silica acid
emulsifiers

(Contd. on page 2)
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.
- For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture
In case of fire, the following can be released:
- Carbon monoxide (CO)

5.3 Advice for firefighters
- Protective equipment: Do not inhale explosion gases or combustion gases.
- Additional information
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
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.
   - Prevent formation of aerosols.

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

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

7.3.1 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:

<table>
<thead>
<tr>
<th>CAS: 8042-47-5 White mineral oil (petroleum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH-TWA</td>
</tr>
<tr>
<td>oil mist</td>
</tr>
</tbody>
</table>

7.3.2 DNELs

<table>
<thead>
<tr>
<th>CAS: 8042-47-5 White mineral oil (petroleum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>Dermal</td>
</tr>
<tr>
<td>Inhalative</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 27458-92-0 Isotridecan-1-ol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>Dermal</td>
</tr>
<tr>
<td>Inhalative</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

7.3.3 PNECs

<table>
<thead>
<tr>
<th>CAS: 27458-92-0 Isotridecan-1-ol</th>
</tr>
</thead>
<tbody>
<tr>
<td>fresh water</td>
</tr>
<tr>
<td>marine water</td>
</tr>
<tr>
<td>aqua - intermittent release</td>
</tr>
<tr>
<td>soil</td>
</tr>
<tr>
<td>sediment (fresh water)</td>
</tr>
</tbody>
</table>

(Contd. of page 4)
Trade name: AGITAN® 703 N

- 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 can not 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).
    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 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:
      - Form: Fluid
      - Colour: Yellowish
      - Odour: Mild
      - Odour threshold: Not determined.
    - pH-value (20 g/l) at 20 °C: ≈ 8 (DIN ISO 976)
  - Change in condition
    - Melting point/freezing point: Undetermined.
    - Initial boiling point and boiling range: > 100 °C
  - Flash point: > 100 °C (DIN EN ISO 2719)
  - Flammability (solid, gas): Not applicable.
  - Decomposition temperature: Not determined.
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 17.12.2018 Version number 1 Revision: 01.08.2018

Trade name: AGITAN® 703 N

(Contd. of page 4)

- 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: ≈ 1 Vol % (01-2119487078-27)
  - Upper: ≈ 10 Vol % (01-2119487078-27)
- Oxidising properties: None.
- Vapour pressure: Not determined.
- Density at 20 °C: ≈ 0.92 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: ≈ 250 mPas (DIN EN ISO 3219)
  - Kinematic at 40 °C: > 20.5 mm²/s (DIN EN ISO 51562)
- 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:
  - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
  - 10.3 Possibility of hazardous reactions: No dangerous reactions known.
  - 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.

<table>
<thead>
<tr>
<th>LD/LC50 values relevant for classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 8042-47-5 White mineral oil (petroleum)</td>
</tr>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>Dermal</td>
</tr>
<tr>
<td>CAS: 27458-92-0 Isotridecan-1-ol</td>
</tr>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>Dermal</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.

(Contd. on page 6)
12.6 Other adverse effects

- 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: 8042-47-5 White mineral oil (petroleum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 &gt;1,000 mg/l (fish) (Leucicus idus / 96 h (OECD 203))</td>
</tr>
<tr>
<td>LL50 &gt;100 mg/l (daphnia) (Daphnia magna / 48 h (OECD 202))</td>
</tr>
<tr>
<td>NOELR &gt;100 mg/l (alga) (Pseudokirchnerella subcapitata / 72 h (OECD 201))</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 27458-92-0 Isotridecan-1-ol</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50 (static) 0.297 mg/l (alga) (Desmodesmus subspicatus / 72 h (OECD 201))</td>
</tr>
<tr>
<td>0.391 mg/l (daphnia) (Daphnia magna / 48 h (OECD 202))</td>
</tr>
<tr>
<td>LC50 0.55 mg/l (fish) (Brachydanio rerio / 96 h (OECD 203))</td>
</tr>
<tr>
<td>NOEC 0.0016-0.014 mg/l (daphnia) (Daphnia magna / 21 d (OECD 211))</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:

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

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

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms.

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

07 06 08* other still bottoms and reaction residues

(Contd. on page 7)
### SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.1 UN-Number</th>
<th>UN3082</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td></td>
</tr>
<tr>
<td>ADR/RID/ADN</td>
<td></td>
</tr>
<tr>
<td>IMDG</td>
<td></td>
</tr>
<tr>
<td>IATA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.3 Transport hazard class(es)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR/RID/ADN, IMDG, IATA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class</th>
<th>9 Miscellaneous dangerous substances and articles.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.4 Packing group</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR/RID/ADN, IMDG, IATA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.5 Environmental hazards:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine pollutant:</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Symbol (fish and tree)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special marking (ADR/RID/ADN):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol (fish and tree)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special marking (IATA):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol (fish and tree)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.6 Special precautions for user</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warning: Miscellaneous dangerous substances and articles.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Danger code (Kemler):</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EMS Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-A,S-F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stowage Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transport/Additional information:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>ADR/RID/ADN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited quantities (LQ)</td>
</tr>
<tr>
<td>5L</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transport category</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UN &quot;Model Regulation&quot;:</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ISOTRIDECA-N-OL), 9, III</td>
</tr>
</tbody>
</table>

(Contd. of page 6)
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.
  - Seveso category E2 Hazardous to the Aquatic Environment
  - Qualifying quantity (tonnes) for the application of lower-tier requirements: 200 t
  - Qualifying quantity (tonnes) for the application of upper-tier requirements: 500 t
  - REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
  - 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
  - H304 May be fatal if swallowed and enters airways.
  - H315 Causes skin irritation.
  - H400 Very toxic to aquatic life.
  - H410 Very 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)
  - 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
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Asp. Tox. 1: Aspiration hazard – Category 1
  - Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
  - Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
  - Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2