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

1.1 Product identifier
- Trade name: AGITAN® DF 6420
- UFI: JC61-C00S-E006-KCA7

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): 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
  Flam. Liq. 3 H226 Flammable liquid and vapour.
  Skin Irrit. 2 H315 Causes skin irritation.
  Eye Dam. 1 H318 Causes serious eye damage.
  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

  GHS02  GHS05  GHS08

- Signal word: Danger

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

- Hazard statements
  H226 Flammable liquid and vapour.
  H315 Causes skin irritation.
  H318 Causes serious eye damage.
  H304 May be fatal if swallowed and enters airways.

- Precautionary statements
  P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
  P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
  P321 Specific treatment (see on this label).
SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
Description: Mixture: consisting of the following components.

- Dangerous components:

<table>
<thead>
<tr>
<th>EC number: 926-141-6</th>
<th>Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics</th>
<th>50-75%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reg.nr.: 01-2119456620-43</td>
<td>Asp. Tox. 1, H304</td>
<td></td>
</tr>
<tr>
<td>CAS: 108-94-1</td>
<td>cyclohexanone</td>
<td>20-50%</td>
</tr>
<tr>
<td>EINECS: 203-631-1</td>
<td>Flam. Liq. 3; H226; Eye Dam. 1; H318; Acute Tox. 4; H302; Acute Tox. 4; H312; Acute Tox. 4; H332; Skin Irrit. 2, H315</td>
<td></td>
</tr>
<tr>
<td>Reg.nr.: 01-2119453616-35</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. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
After inhalation:
Take affected persons into fresh air and keep quiet. Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.
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:
Do not induce vomiting; call for medical help immediately.

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

Use respiratory protective device against the effects of fumes/dust/aerosol.
Keep away from ignition sources.
Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Do not allow to penetrate the ground/soil.
Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up:

Do not flush with water or aqueous cleansing agents
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

6.4 Reference to other sections

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

Store in cool, dry place in tightly closed receptacles.
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.
Fumes can combine with air to form an explosive mixture.
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.
Trade name: AGITAN® DF 6420

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>CAS: 108-94-1 cyclohexanone</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOELV</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Skin</td>
</tr>
</tbody>
</table>

DNELs

<table>
<thead>
<tr>
<th>CAS: 108-94-1 cyclohexanone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>Dermal</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

PNECs

<table>
<thead>
<tr>
<th>CAS: 108-94-1 cyclohexanone</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>
<tr>
<td>sewage treatment plant</td>
</tr>
</tbody>
</table>

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.

Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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
Nitrile rubber, NBR
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.

- **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:** Tightly sealed goggles
- **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:** Colourless
  **Odour:** Solvent-like
  **Odour threshold:** Not determined.
  **pH-value (20 g/l) at 20 °C:** ≈ 6.5 (DIN ISO 976)
  **Change in condition**
  - **Melting point/freezing point:** Undetermined.
  - **Initial boiling point and boiling range:** > 150 °C
  **Flash point:** ≈ 45 °C (DIN EN ISO 2719)
  **Flammability (solid, gas):** Not applicable.
  **Ignition temperature:** Not determined.
  **Decomposition temperature:** Not determined.
  **Auto-ignition temperature:** Product is not selfigniting.
  **Explosion properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**
  - **Lower:** ≈ 0.6 Vol % (01-2119456620-43)
  - **Upper:** ≈ 9.4 Vol % (01-2119453616-35)
- **Oxidising properties**
  None.
- **Vapour pressure:** Not determined.
  **Density at 20 °C:** ≈ 0.84 g/cm³ (DIN EN ISO 2811-1)
  **Relative density**
  Not determined.
  **Vapour density**
  Not determined.
  **Evaporation rate**
  Not determined.
Solubility in / Miscibility with water: Insoluble.

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

Viscosity: Kinematic at 40 °C: < 7 mm²/s (DIN EN ISO 51562)

Solvent separation test: Not determined

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 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:

<table>
<thead>
<tr>
<th>Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics</th>
<th>Oral</th>
<th>Dermal</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>&gt;5000 mg/kg (rat) (OECD 401)</td>
<td>&gt;5000 mg/kg (rabbit) (OECD 402)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 108-94-1 cyclohexanone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>LD50</td>
</tr>
<tr>
<td>Inhalative LC50/4h</td>
</tr>
</tbody>
</table>

Primary irritant effect:

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/irritation
Causes serious eye damage.

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.
SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Species/Strain</th>
<th>Concentration</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>LL0</td>
<td>1000 mg/l</td>
<td>fish (Onchorhynchus mykiss)</td>
<td>96 h</td>
<td></td>
</tr>
<tr>
<td>EL0</td>
<td>1000 mg/l</td>
<td>algae (green algae)</td>
<td>72 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1000 mg/l</td>
<td>daphnia (Daphnia magna)</td>
<td>48 h</td>
<td></td>
</tr>
</tbody>
</table>

CAS: 108-94-1 cyclohexanone

EC50: 32.9 mg/l (alga) (Chlamydomonas reinhardii) / 72 h
820 mg/l (daphnia) (Daphnia magna) / 48 h

LC50: >500 mg/l (fish) (Pimephales promelas) / 96 h

12.2 Persistence and degradation

Biodegradable

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

Ecotoxicological 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 05* organic wastes containing hazardous substances

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.
### SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.1 UN-Number</th>
<th>UN1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>1993 FLAMMABLE LIQUID, N.O.S. (CYCLOHEXANONE)</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>Class 3 Flammable liquids.</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>III</td>
</tr>
<tr>
<td>14.5 Environmental hazards:</td>
<td>Marine pollutant: No</td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td>Warning: Flammable liquids.</td>
</tr>
<tr>
<td>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

### 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 P5c FLAMMABLE LIQUIDS |
| Qualifying quantity (tonnes) for the application of lower-tier requirements | 5000 t |
| Qualifying quantity (tonnes) for the application of upper-tier requirements | 50000 t |
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:

Information about limitation of use:
Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.

Waterhazard class: Water hazard class 1 (German AwSV, Self-assessment): slightly hazardous for water.

Other regulations, limitations and prohibitive regulations
The restrictions in marketing and using of nonylphenol ethoxylates mentioned in REACH, Annex XVII and the regulation 689/2008/EC concerning the export and import of dangerous chemicals have to be observed.

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
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H332 Harmful if inhaled.

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)
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
Flam. Liq. 3: Flammable liquids – Category 3
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
Asp. Tox. 1: Aspiration hazard – Category 1