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

1.1 Product identifier

Trade name
TM AMICAL
Registration number (REACH) not relevant (mixture)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses
indoor paint and varnish
Schimmelschutz

Uses advised against
this information is not available

1.3 Details of the supplier of the safety data sheet

Thonhauser GmbH
Perlhofgasse 2/1
2372 Giesshübl/Wien
Austria

Telephone: +43 (0)2236 320 272
Telefax: +43 (0)2236 320 273
e-mail: QA@thonhauser.net
Website: www.thonhauser.net

Competent person
Herr Dr. Daniel Herzog
e-mail (competent person)
QA@thonhauser.net

1.4 Emergency telephone number

Emergency information service
+43 (0)1 406 43 43 24h

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)
GHS chapter Hazard class and category Hazard statement code(s)
4.1C hazardous to the aquatic environment - chronic hazard Cat. 3 (Aquatic Chronic 3) H412

Remarks
For full text of H-phrases: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects
Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word not required
Pictograms not required
Hazard statements
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
Precautionary statements - prevention
P273 Avoid release to the environment.

Precautionary statements - disposal
P501 Dispose of contents/container to industrial combustion plant.

2.3 Other hazards
There is no additional information.

SECTION 3: Composition/information on ingredients

3.1 Substances
not relevant (mixture)

3.2 Mixtures

Description of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>Identifier</th>
<th>wt%</th>
<th>Classification acc. to 1272/2008/EC</th>
<th>Pictograms</th>
</tr>
</thead>
<tbody>
<tr>
<td>octhilinone</td>
<td>CAS No 26530-20-1</td>
<td>&lt; 1</td>
<td>Acute Tox. 4 / H302 Acute Tox. 3 / H311 Acute Tox. 3 / H331 Skin Corr. 1B / H314 Skin Sens. 1 / H317 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410</td>
<td>![Pictograms]</td>
</tr>
<tr>
<td></td>
<td>EC No 247-761-7</td>
<td></td>
<td></td>
<td>![Pictograms]</td>
</tr>
<tr>
<td>pyrithione zinc</td>
<td>CAS No 13463-41-7</td>
<td>&lt; 1</td>
<td>Acute Tox. 3 / H301 Acute Tox. 3 / H331 Eye Dam. 1 / H319 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410</td>
<td>![Pictograms]</td>
</tr>
<tr>
<td></td>
<td>EC No 236-671-3</td>
<td></td>
<td></td>
<td>![Pictograms]</td>
</tr>
<tr>
<td>3-iod-2-propinylbutylcarbamate</td>
<td>CAS No 55406-53-6</td>
<td>&lt; 1</td>
<td>Acute Tox. 4 / H302 Acute Tox. 4 / H332 Eye Dam. 1 / H318 Skin Sens. 1 / H317 STOT SE 3 / H335 Aquatic Acute 1 / H400 Aquatic Chronic 4 / H413</td>
<td>![Pictograms]</td>
</tr>
</tbody>
</table>

For full text of abbreviations: see SECTION 16.
SECTION 4: First aid measures

4.1 Description of first aid measures

General notes
Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation
If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact
Wash with plenty of soap and water.

Following eye contact
Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion
Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed
Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed
none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
water spray, alcohol resistant foam, BC-powder, carbon dioxide (CO2)

Unsuitable extinguishing media
water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
nitrogen oxides (NOx), carbon monoxide (CO), carbon dioxide (CO2)

5.3 Advice for firefighters
In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.
Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
TM AMICAL

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
   For non-emergency personnel
   Remove persons to safety.
   For emergency responders
   Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions
   Keep away from drains, surface and ground water. Retain contaminated washing water and dispose it.

6.3 Methods and material for containment and cleaning up
   Advices on how to contain a spill
   Covering of drains.
   Advices on how to clean up a spill
   Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage (sawdust, kieselgur (diatomite), sand, universal binder). Absorbents and binders, neutralising agents.
   Appropriate containment techniques
   Use of adsorbent materials.
   Other information relating to spills and releases
   Place in appropriate containers for disposal. Ventilate affected area.

Reference to other sections

SECTION 7: Handling and storage

7.1 Precautions for safe handling
   Recommendations
   • Measures to prevent fire as well as aerosol and dust generation
     Use local and general ventilation. Use only in well-ventilated areas.
   • Handling of incompatible substances or mixtures
   • Keep away from
     (alkalis)
   Advice on general occupational hygiene
   Wash hands after use. Do not to eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.
7.2 Conditions for safe storage, including any incompatibilities

Consideration of other advice
Observe technical data sheet
Lagerklasse (storage class according to TRGS 510, Germany): 12 (non-combustible liquids)

7.3 Specific end use(s)
These information are not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Relevant DNELs/DMELs/PNECs and other threshold levels

• relevant DNELs of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No.</th>
<th>Endpoint</th>
<th>Threshold level</th>
<th>Protection goal, route of exposure</th>
<th>Used in</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>pyrithione zinc</td>
<td>13463-41-7</td>
<td>DNEL</td>
<td>0.01 mg/kg</td>
<td>human, dermal</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
</tbody>
</table>

• relevant PNECs of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No.</th>
<th>Endpoint</th>
<th>Threshold level</th>
<th>Organism</th>
<th>Environmental compartment</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>pyrithione zinc</td>
<td>13463-41-7</td>
<td>PNEC</td>
<td>0.01 mg/l</td>
<td>microorganisms</td>
<td>sewage treatment plant (STP)</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>pyrithione zinc</td>
<td>13463-41-7</td>
<td>PNEC</td>
<td>0.0095 mg/kg</td>
<td>benthic organisms</td>
<td>sediments</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>pyrithione zinc</td>
<td>13463-41-7</td>
<td>PNEC</td>
<td>0.0095 mg/kg</td>
<td>pelagic organisms</td>
<td>sediments</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>pyrithione zinc</td>
<td>13463-41-7</td>
<td>PNEC</td>
<td>8.85 mg/kg</td>
<td>terrestrial organisms</td>
<td>soil</td>
<td>short-term (single instance)</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Appropriate engineering controls
General ventilation.
Individual protection measures (personal protective equipment)

Eye/face protection
Wear eye/face protection.
Skin protection
• hand protection
Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
• other protection measures
Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.
Respiratory protection
In case of inadequate ventilation wear respiratory protection.
Environmental exposure controls
Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
Physical state liquid
Colour different
Odour characteristic

Other physical and chemical parameters
pH (value) not determined
Melting point/freezing point not determined
Initial boiling point and boiling range not determined
Flash point not determined
Evaporation rate not determined
Flammability (solid, gas) not relevant (fluid)
Explosive limits not determined
Vapour pressure not determined
Density not determined
Relative density Information on this property is not available.
Solubility(ies) not determined
Partition coefficient
n-octanol/water (log KOW) This information is not available.
Auto-ignition temperature not determined
Viscosity not determined
Explosive properties none
Oxidising properties none
9.2 Other information

Solvent content 0.081 %
Solid content 0.063 %

SECTION 10: Stability and reactivity

10.1 Reactivity
Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability
See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid
There are no specific conditions known which have to be avoided.

10.5 Incompatible materials
There is no additional information.

10.6 Hazardous decomposition products
Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Test data are not available for the complete mixture.

Classification procedure
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity
Shall not be classified as acutely toxic.

• Acute toxicity of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Exposure route</th>
<th>ATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>octhilinone</td>
<td>26530-20-1</td>
<td>oral</td>
<td>500</td>
</tr>
<tr>
<td>octhilinone</td>
<td>26530-20-1</td>
<td>dermal</td>
<td>300</td>
</tr>
<tr>
<td>octhilinone</td>
<td>26530-20-1</td>
<td>inhalation: vapour</td>
<td>3</td>
</tr>
<tr>
<td>pyrithione zinc</td>
<td>13463-41-7</td>
<td>oral</td>
<td>100</td>
</tr>
<tr>
<td>pyrithione zinc</td>
<td>13463-41-7</td>
<td>inhalation: vapour</td>
<td>3</td>
</tr>
<tr>
<td>3-lod-2-propinylbutylcarbamat</td>
<td>55406-53-6</td>
<td>oral</td>
<td>500</td>
</tr>
<tr>
<td>3-lod-2-propinylbutylcarbamat</td>
<td>55406-53-6</td>
<td>inhalation: vapour</td>
<td>11</td>
</tr>
</tbody>
</table>
Skin corrosion/irritation
Shall not be classified as corrosive/irritant to skin.

Respiratory or skin sensitisation
Shall not be classified as a respiratory or skin sensitiser.

Summary of evaluation of the CMR properties
Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant.

Specific target organ toxicity (STOT)
Shall not be classified as a specific target organ toxicant.

Aspiration hazard
Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity
Harmful to aquatic life.

Aquatic toxicity (acute)

Aquatic toxicity (acute) of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>octhilinone</td>
<td>26530-20-1</td>
<td>LC50</td>
<td>0.03 mg/l</td>
<td>rainbow trout</td>
<td>96 hours</td>
</tr>
<tr>
<td>octhilinone</td>
<td>26530-20-1</td>
<td>EC50</td>
<td>0.4 mg/l</td>
<td>daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td>pyrithione zinc</td>
<td>13463-41-7</td>
<td>LC50</td>
<td>2.6 mg/l</td>
<td>fish</td>
<td>96 hours</td>
</tr>
<tr>
<td>pyrithione zinc</td>
<td>13463-41-7</td>
<td>EC50</td>
<td>8.2 mg/l</td>
<td>aquatic invertebrates</td>
<td>48 hours</td>
</tr>
<tr>
<td>3-Iod-2-propinylbutylcarbamat</td>
<td>55406-53-6</td>
<td>EC50</td>
<td>0.21 mg/l</td>
<td>daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td>3-Iod-2-propinylbutylcarbamat</td>
<td>55406-53-6</td>
<td>LC50</td>
<td>0.067 mg/l</td>
<td>rainbow trout</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Aquatic toxicity (chronic)
May cause long-term adverse effects in the aquatic environment.

Aquatic toxicity (chronic) of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>pyrithione zinc</td>
<td>13463-41-7</td>
<td>EC50</td>
<td>5.21 mg/l</td>
<td>aquatic invertebrates</td>
<td>28 d</td>
</tr>
</tbody>
</table>

12.2 Process of degradability
Data are not available.
Degradability of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Process</th>
<th>Degradation rate</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>pyrithione zinc</td>
<td>13463-41-7</td>
<td>carbon dioxide generation</td>
<td>39 %</td>
<td>28 d</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential
Data are not available.

Bioaccumulative potential of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>BCF</th>
<th>Log KOW</th>
<th>BOD5/COD</th>
</tr>
</thead>
<tbody>
<tr>
<td>pyrithione zinc</td>
<td>13463-41-7</td>
<td>8.28</td>
<td>0.9</td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil
Data are not available.

12.5 Results of PBT and vPvB assessment
Data are not available.

12.6 Other adverse effects
Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information
Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings
It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

13.2 Relevant provisions relating to waste

List of wastes
Assign arising waste to a waste code according to the national list of waste.

13.3 Remarks
Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.
SECTION 14: Transport information

14.1 UN number (not subject to transport regulations)
14.2 UN proper shipping name not relevant
14.3 Transport hazard class(es)
   Class -
14.4 Packing group not relevant
14.5 Environmental hazards none (non-environmentally hazardous acc. to the dangerous goods regulations)
14.6 Special precautions for user
   There is no additional information.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
   The cargo is not intended to be carried in bulk.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

   Relevant provisions of the European Union (EU)
   • Limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products (2004/42/EC, Deco-Paint Directive)
     VOC content 0 %
   • Directive on industrial emissions (VOCs, 2010/75/EU)
     VOC content 0 %

   National regulations (Austria)
   • Ordinance on combustible liquids (VbF)
     VbF (group and hazard class): not assigned
     Flash point higher than 100 °C.

   National regulations (Switzerland)
   Ordinance on the incentive tax on volatile organic compounds (VOCV)
   VOC content (object of taxation): 

15.2 Chemical Safety Assessment
   Chemical safety assessments for substances in this mixture were not carried out.
### Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox.</td>
<td>acute toxicity</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</td>
</tr>
<tr>
<td>Aquatic Acute</td>
<td>hazardous to the aquatic environment - acute hazard</td>
</tr>
<tr>
<td>Aquatic Chronic</td>
<td>hazardous to the aquatic environment - chronic hazard</td>
</tr>
<tr>
<td>ATE</td>
<td>Acute Toxicity Estimate</td>
</tr>
<tr>
<td>BCF</td>
<td>BioConcentration Factor</td>
</tr>
<tr>
<td>BOD</td>
<td>Biochemical Oxygen Demand</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)</td>
</tr>
<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>CMR</td>
<td>Carcinogenic, Mutagenic or toxic for Reproduction</td>
</tr>
<tr>
<td>COD</td>
<td>chemical oxygen demand</td>
</tr>
<tr>
<td>DMEL</td>
<td>Derived Minimal Effect Level</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived No-Effect Level</td>
</tr>
<tr>
<td>EC No</td>
<td>The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)</td>
</tr>
<tr>
<td>Eye Dam.</td>
<td>seriously damaging to the eye</td>
</tr>
<tr>
<td>Eye Irrit.</td>
<td>irritant to the eye</td>
</tr>
<tr>
<td>GHS</td>
<td>&quot;Globally Harmonized System of Classification and Labelling of Chemicals&quot; developed by the United Nations</td>
</tr>
<tr>
<td>log KOW</td>
<td>n-octanol/water</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships (abbr. of <em>Marine Pollutant</em>)</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted No-Effect Concentration</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>Skin Corr.</td>
<td>corrosive to skin</td>
</tr>
<tr>
<td>Skin Irrit.</td>
<td>irritant to skin</td>
</tr>
<tr>
<td>Skin Sens.</td>
<td>skin sensitisation</td>
</tr>
<tr>
<td>STOT SE</td>
<td>specific target organ toxicity - single exposure</td>
</tr>
<tr>
<td>TRGS</td>
<td>Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)</td>
</tr>
<tr>
<td>VbF</td>
<td>ordinance on combustible liquids (Austria)</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compounds</td>
</tr>
<tr>
<td>vPvB</td>
<td>very Persistent and very Bioaccumulative</td>
</tr>
</tbody>
</table>
Key literature references and sources for data
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)

Classification procedure
Physical and chemical properties: The classification is based on tested mixture.
Health hazards/environmental hazards: The method for classification of the mixture is based on ingredients of
the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

<table>
<thead>
<tr>
<th>Code</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>H301</td>
<td>toxic if swallowed</td>
</tr>
<tr>
<td>H302</td>
<td>harmful if swallowed</td>
</tr>
<tr>
<td>H311</td>
<td>toxic in contact with skin</td>
</tr>
<tr>
<td>H314</td>
<td>causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H317</td>
<td>may cause an allergic skin reaction</td>
</tr>
<tr>
<td>H318</td>
<td>causes serious eye damage</td>
</tr>
<tr>
<td>H331</td>
<td>toxic if inhaled</td>
</tr>
<tr>
<td>H332</td>
<td>harmful if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>may cause respiratory irritation</td>
</tr>
<tr>
<td>H400</td>
<td>very toxic to aquatic life</td>
</tr>
<tr>
<td>H410</td>
<td>very toxic to aquatic life with long lasting effects</td>
</tr>
<tr>
<td>H412</td>
<td>harmful to aquatic life with long lasting effects</td>
</tr>
<tr>
<td>H413</td>
<td>may cause long lasting harmful effects to aquatic life</td>
</tr>
</tbody>
</table>

Disclaimer
This information is based upon the present state of our knowledge. This SDS has been compiled and is solely
intended for this product.