1 Identification

1.1 Product identifier

Trade name: AFCONA - 3581
Application of the substance / the mixture: Paint Additives

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
Haiman AFCONA Chemicals Co., Ltd
29, Daqing Road, Qing-Long Chemical Industrial Park, Haimen, Jiangsu Province, 226121, P.R.China
Tel: +82-513-82658995

Information department: Product safety department.

1.4 Emergency telephone number:
For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 CCN796211 or +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.

GHS07

Acute Tox. 4 H332 Harmful if inhaled.
STOT SE 3 H336 May cause drowsiness or dizziness.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 The product is classified and labeled according to the CLP regulation.

Hazard pictograms

GHS02 GHS07

Signal word Warning

Hazard-determining components of labeling:
1-methoxy-2-propanol

Hazard statements
H226 Flammable liquid and vapor.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
Trade name: AFCONA - 3581

(Contd. of page 1)

- Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P280 Wear protective gloves / eye protection / face protection.
P240 Ground/bond container and receiving equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P271 Use only outdoors or in a well-ventilated area.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
P405 Store locked up.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
- NFPA ratings (scale 0 - 4)

Health = 0
Fire = 3
Reactivity = 0

- HMIS-ratings (scale 0 - 4)

HEALTH 3
Fire = 3
Reactivity = 0

- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients

- 3.2 Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>1-methoxy-2-propanol</th>
<th>25-50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-98-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4 First-aid measures

- 4.1 Description of first aid measures

- General information:
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation:
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: Generally the product does not irritate the skin.

(Contd. on page 3)
44.0

- 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.

5 Fire-fighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents:
  - CO2, extinguishing 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: No further relevant information available.
- 5.3 Advice for firefighters
- Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
  - Wear protective equipment. Keep unprotected persons away.
- 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).
  - 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.
- Protective Action Criteria for Chemicals

<table>
<thead>
<tr>
<th>PAC-1:</th>
<th>Concentration (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-98-2</td>
<td>1-methoxy-2-propanol</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAC-2:</th>
<th>Concentration (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-98-2</td>
<td>1-methoxy-2-propanol</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAC-3:</th>
<th>Concentration (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-98-2</td>
<td>1-methoxy-2-propanol</td>
</tr>
</tbody>
</table>

7 Handling and storage

- 7.1 Precautions for safe handling
  - Keep receptacles tightly sealed.
  - Ensure good ventilation/exhaustion at the workplace.
- Information about protection against explosions and fires:
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.
- 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: Keep receptacle tightly sealed.
8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.

- Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Component</th>
<th>REL Short-term value: 540 mg/m³, 150 ppm</th>
<th>Long-term value: 360 mg/m³, 100 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-98-2 1-methoxy-2-propanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TLV Short-term value: 369 mg/m³, 100 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term value: 184 mg/m³, 50 ppm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Additional information: The lists that were valid during the creation 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.

- Breathing equipment:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- Protection of hands:
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
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
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:

Tightly sealed goggles

9 Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

- General Information
- Appearance:
  - Form: Fluid
  - Color: According to product specification
  - Odor: Characteristic
  - Odor threshold: Not determined.
  - pH-value: Not determined.
Trade name: AFCONA - 3581

- Change in condition
  Melting point/Melting range: Undetermined.
  Boiling point/Boiling range: 120 °C (248 °F)

- Flash point: 32 °C (90 °F)

- Flammability (solid, gaseous): Not applicable.

- Ignition temperature: 270 °C (518 °F)

- Decomposition temperature: Not determined.

- Auto igniting: Product is not selfigniting.

- Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- Explosion limits:
  Lower: 2.3 Vol %
  Upper: 20.0 Vol %

- Vapor pressure at 20 °C (68 °F): 12 hPa (9 mm Hg)

- Density at 20 °C (68 °F): 1.03 g/cm³ (8.595 lbs/gal)
- Relative density: Not determined.
- Vapor density: Not determined.
- Evaporation rate: Not determined.

- Solubility in / Miscibility with Water: Not miscible or difficult to mix.

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

- Viscosity:
  Dynamic: Not determined.
  Kinematic: Not determined.

- Solvent content:
  Organic solvents: 48.0 %
  VOC content: 48.0 %
  494.4 g/l / 4.13 lb/gl

- Solids content: 52.0 %

9.2 Other information
No further relevant information available.

10 Stability and reactivity

10.1 Reactivity No further relevant information available.
10.2 Chemical stability
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.

11 Toxicological information

11.1 Information on toxicological effects
Acute toxicity:
Harmful if inhaled.

(Contd. on page 6)
Trade name: AFCONA - 3581

- Primary irritant effect:
  - on the skin: Based on available data, the classification criteria are not met.
  - on the eye: Based on available data, the classification criteria are not met.
  - Sensitization: Based on available data, the classification criteria are not met.

- Additional toxicological information:
  - Carcinogenic categories
    - IARC (International Agency for Research on Cancer)
      None of the ingredients is listed.
    - NTP (National Toxicology Program)
      None of the ingredients is listed.
    - OSHA-Ca (Occupational Safety & Health Administration)
      None of the ingredients is listed.

12 Ecological information

- 12.1 Toxicity
  - Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability
  - Bioaccumulative potential: No further relevant information available.
- 12.3 Mobility in soil
  - No further relevant information available.
- 12.4 Additional ecological information:
  - General notes:
    Water hazard class 1 (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
    - PBT: Not applicable.
    - vPvB: Not applicable.
  - 12.6 Other adverse effects
    No further relevant information available.

13 Disposal considerations

- 13.1 Waste treatment methods
  - Recommendation:
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
  - Uncleaned packagings:
    - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- 14.1 UN-Number
  - DOT, ADR, IMDG, IATA: UN1866
- 14.2 UN proper shipping name
  - DOT: Resin solution mixture
  - ADR: 1866 Resin solution mixture
  - IMDG, IATA: RESIN SOLUTION mixture
### 14.3 Transport hazard class(es)
- DOT
- Class 3 Flammable liquids
- Label 3
- ADR, IMDG, IATA
- Class 3 Flammable liquids
- Label 3

### 14.4 Packing group
- DOT, ADR, IMDG, IATA
- III

### 14.5 Environmental hazards:
- Marine pollutant: No

### 14.6 Special precautions for user
- Warning: Flammable liquids
- Danger code (Kemler): 30
- EMS Number: F-E,S-D
- Stowage Category A

### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
- Not applicable.

### Transport/Additional information:
- DOT
  - Quantity limitations
    - On passenger aircraft/rail: 60 L
    - On cargo aircraft only:

- ADR
  - Excepted quantities (EQ)
    - Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml

- IMDG
  - Limited quantities (LQ)
    - 5L
  - Excepted quantities (EQ)
    - Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml

### UN "Model Regulation":
- UN 1866 RESIN SOLUTION MIXTURE, 3, III

## 15 Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara
  - Section 355 (extremely hazardous substances):
    - None of the ingredient is listed.
Safety Data Sheet
acc. to OSHA HCS

Trade name: AFCONA - 3581

(Contd. of page 7)

- **Section 313 (Specific toxic chemical listings):**
  None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**
  All ingredients are listed.

- **Proposition 65**
  None of the ingredients is listed.

- **Chemicals known to cause cancer:**
  None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**
  None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**
  None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**
  None of the ingredients is listed.

- **Cancerogenity categories**
  None of the ingredients is listed.

- **EPA (Environmental Protection Agency)**
  None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**
  None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  None of the ingredients is listed.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

- **Department issuing SDS:** Product safety department.

- **Contact:** Mr. Saw Eng Nee

- **Date of preparation / last revision** 01/18/2017 / -

- **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
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  ACGIH: American Conference of Governmental Industrial Hygienists
  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)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  VOC: Volatile Organic Compounds (USA, EU)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit
  Flam. Liq. 3: Flammable liquids – Category 3
  Acute Tox. 4: Acute toxicity – Category 4
  STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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