1: Identification

1.1 Product identifier
- Trade name: AFCONA - 2721
- 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: +82-513-8265995
- Information department: Product safety department.
- 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
  Skin Irrit. 2 H315 Causes skin irritation.
  Skin Sens. 1 H317 May cause an allergic skin reaction.
  STOT SE 3 H335 May cause respiratory irritation.

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:
  2-ethylhexyl acrylate
  2,6-dimethylheptan-4-one
  mequinol
- Hazard statements
  H226 Flammable liquid and vapor.
  H315 Causes skin irritation.

(Contd. on page 2)
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

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.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing must not be allowed out of the workplace.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P321 Specific treatment (see on this label).
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P363 Wash contaminated clothing before reuse.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
P362+P364 Take off contaminated clothing and wash it before reuse.
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 = 1
- Fire = 2
- Reactivity = 0

HMIS-ratings (scale 0 - 4)
- Health = 1
- Fire = 2
- 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>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>103-11-7</td>
<td>2-ethylhexyl acrylate</td>
</tr>
<tr>
<td>108-83-8</td>
<td>2,6-dimethylheptan-4-one</td>
</tr>
<tr>
<td>150-76-5</td>
<td>mequinol</td>
</tr>
</tbody>
</table>
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 and to be sure call for a doctor. 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.
  - 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: No special measures required.

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).
  - 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.

7: Handling and storage

- 7.1 Precautions for safe handling
  - Keep receptacles tightly sealed.
  - Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of aerosols.
  - 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:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td>Long-term value: 290 mg/m³, 50 ppm</td>
<td></td>
</tr>
<tr>
<td>REL</td>
<td>Long-term value: 150 mg/m³, 25 ppm</td>
<td></td>
</tr>
<tr>
<td>TLV</td>
<td>Long-term value: 145 mg/m³, 25 ppm</td>
<td></td>
</tr>
</tbody>
</table>

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

- 8.1 Control parameters

- 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 skin.
  - Avoid contact with the eyes and skin.

- 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:

  Protective gloves

  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

(Contd. on page 5)
### 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

- **General Information**
- **Appearance:** Fluid
- **Color:** According to product specification
- **Odor:** Characteristic
- **Odour threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**
  - **Melting point/Melting range:** Undetermined.
  - **Boiling point/Boiling range:** 175 °C (347 °F)

- **Flash point:** 46 °C (115 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:** 245 °C (473 °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:** 0.8 Vol %
  - **Upper:** 6.2 Vol %

- **Vapor pressure at 20 °C (68 °F):** 5 hPa (4 mm Hg)

- **Density at 20 °C (68 °F):** 0.89 g/cm³ (7.427 lbs/gal)
  - **Relative density:** Not determined.
  - **Vapour 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:** 97.4 %
  - **VOC content:** 97.5 %
  - **Solids content:** 2.5 %
  - **867.7 g/l / 7.24 lb/gl**

#### 9.2 Other information

No further relevant information available.

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### 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.
11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>103-11-7 2-ethylhexyl acrylate</td>
<td>5660 mg/kg (rat)</td>
<td>8480 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

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

- Sensitization:
  May cause an allergic skin reaction.

- Additional toxicological information:

Carcinogenic categories

- IARC (International Agency for Research on Cancer)

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Carcinogenicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>103-11-7 2-ethylhexyl acrylate</td>
<td>3</td>
</tr>
</tbody>
</table>

- 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 Toxicty
- Aquatic toxicity: No further relevant information available.

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.

12.5 Additional ecological information:

- General notes:
  Water hazard class 2 (Self-assessment): hazardous for water
  Do not allow product to reach ground water, water course or sewage system.
  Danger to drinking water if even small quantities leak into the ground.

- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

- 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.
### 14: Transport information

**14.1 UN-Number**
- DOT, ADR, IMDG, IATA: UN1866

**14.2 UN proper shipping name**
- DOT: Resin solution
- ADR: 1866 Resin solution
- IMDG, IATA: RESIN SOLUTION

**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-E
- 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: 220 L

- 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)
    - Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml

(Contd. on page 8)
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.
    - Section 313 (Specific toxic chemical listings):
      None of the ingredients is listed.
  - TSCA (Toxic Substances Control Act):
    103-11-7 2-ethylhexyl acrylate
    108-83-8 2,6-dimethylheptan-4-one
    150-76-5 mequinol
  - Proposition 65
    - 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
    - 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.
  - 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:
    2-ethylhexyl acrylate
    2,6-dimethylheptan-4-one
    mequinol
  - Hazard statements
    H226 Flammable liquid and vapor.
    H315 Causes skin irritation.
    H317 May cause an allergic skin reaction.
    H335 May cause respiratory irritation.
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P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· 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 10/27/2015 / -

· Abbreviations and acronyms:
  RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  ICAO: International Civil Aviation Organisation
  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)
  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, Hazard Category 3
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
  STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3