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

1.1 Product Identifier
Product Name: Adamatic
Product Codes: 700403700404700405

1.2 Relevant identified uses of the substance or mixture and uses advised against
Uses advised against: Uses other than those identified are not recommended

1.3 Details of the supplier of the safety data sheet
Manufacturer/Distributor: Arpal Gulf LLC
Jebel Ali Industrial Area #3
Easa Saleh Al Gurg Warehouse #50 & #61
Dubai
United Arab Emirates
P O Box 123053

1.4 Emergency Telephone Number
Telephone +971 (04) 880 3220 or 800 4005 (Toll Free in United Arab Emirates) during office hours Sunday to Thursday 09.00 to 17.00 hours UAE time.

2 Hazards Identification

2.1 Classification of Substance or mixture
Product Definition: Mixture
Classification according to Regulation (EC) No. 1272/2008
Physical Hazards: Met Corr 1 – H290
Human Health Hazards: Skin Corr 1 – H314
Environmental Hazards: None
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label Elements
Label Elements (In Accordance With (EC) No. 1272/2008)
Pictogram(s)

Signal Word: Danger
Contains Sodium Hydroxide and Etidronic Acid

Hazard Statements
H290: May be corrosive to metals
H314: Causes severe skin burns and eye damage.

Precautionary statements
Prevention: P280: Wear protective gloves, protective clothing, and eye or face protection

Response
P303 + P361 + P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTRE or doctor
P390: Absorb spillage to avoid material damage

2.3 Other hazards
Other hazards which do not result in classification: Not applicable
3 Composition/Information on Ingredients

3.2 Mixtures

<table>
<thead>
<tr>
<th>Product/Ingredient Name</th>
<th>Identifiers Index No/CAS/EC No</th>
<th>%</th>
<th>Classification Under Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>011-002-00-6/1310-73-2/215-185-5</td>
<td>10-20</td>
<td>Skin Corr 1A (H314)</td>
<td>1, 2</td>
</tr>
<tr>
<td>Trisodiumnitrilotriacetate</td>
<td>607-620-00-6/5064-31-3/225-768-6</td>
<td>1-5</td>
<td>Carc 2 (H351) Acute Tox. 4 (H302) Eye Irrit. 2 (H319)</td>
<td>1</td>
</tr>
<tr>
<td>Alanine, N,N-bis(carboxymethyl)-, sodium salt (1:3)</td>
<td>N/A/164462-16-2/605-362-9</td>
<td>1-5</td>
<td>Metal Cor (H290)</td>
<td>1</td>
</tr>
<tr>
<td>Etidronic Acid</td>
<td>N/A/2809-21-4/220-552-8</td>
<td>1-5</td>
<td>Metal Cor (H290) Acute Tox 4 (H302) Eye Dam. 1 (H318)</td>
<td>1</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Type
1. Substance classified with a health or environmental hazard
2. Substance with a workplace exposure limit
3. Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
4. Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.

4 First aid measures

4.1 Description of first aid measures

Eye Contact
Get medical attention immediately. Rinse opened eye for at least 15 minutes with plenty of water. Check for and remove contact lenses. Any chemical burns must be treated promptly by a doctor.

Inhalation
Remove from source of exposure. Supply fresh air. Get medical attention immediately.

Skin Contact
Immediately wash thoroughly with plenty of water. Remove all contaminated clothing. Continue to rinse for 15 minutes. Apply sterile dressings if required. Consult a skin specialist in the event of irritation or burns.

Ingestion
Immediately rinse mouth and ask person to slowly sip 200-300 ml of water or milk. Stop if person shows signs of vomiting. Seek medical attention immediately. Do not induce vomiting.

Protection of First Aider
Wear PPE if appropriate (Refer to section 8.2)

4.2 Most important symptoms and effects, both acute and delayed

Symptoms
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Severe burns and irritation are most likely symptoms when there is exposure to skin, eyes and respiratory system. Not considered to cause sensitization. Further important symptoms and effects are so far not known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment
Treat according to symptoms (decontamination, vital functions). Toxicological information on components, where available, in given in section 11.

5 Fire fighting measures

5.1 Extinguishing media

Extinguishing media
Extinguish with foam, carbon dioxide, dry powder or water fog

Unsuitable extinguishing media
None known

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture
In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products
During fire toxic gases, CO and CO₂ are formed

5.3 Advice for fire-fighters
### Special precautions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

### Special protective equipment for fire-fighters

Fire-fighters should wear self-contained breathing apparatus and suitable personal protective equipment as appropriate to the surrounding fire.

## 6 Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe vapour/spray/mist. Avoid contact with the skin, eyes and clothing. Use personal protective clothing. Information regarding personal protective measures see, section 8.

### 6.2 Environmental precautions

Do not discharge into drains/surface waters/groundwater. Contain contaminated water/fire fighting water.

### 6.3 Methods and material for containment and cleaning up

**Small spill:** Dilute with water and mop up or absorb with an inert dry material and place in an appropriate waste disposal container.

**Large spill**

Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. dry sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13).

### 6.4 Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

## 7 Handling and storage

### 7.1 Precautions for safe handling

Keep container tightly closed. Avoid contact with the skin, eyes and clothing. Contaminated surfaces may be extremely slippery. Clean up spillages. Do not allow to dry. Do not eat, drink or smoke in area where material is used or stored.

### 7.2 Conditions for safe storage, including any incompatibilities

Protect against heat. Store in original labelled containers. Keep container tightly closed, upright and in a cool place. Keep away from acids. Protect from freezing.

### 7.3 Specific end use(s)

Recommendations: Not specific advice available.

Industrial sector specific solutions: Not applicable.

## 8 Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>EH40 (United Kingdom): STEL: 2mg/m³ (15 minutes)</td>
</tr>
</tbody>
</table>

### 8.2 Exposure controls

**Process conditions**

Provide eye-wash stations

**Engineering Measures**

The concentrated product is intended to be used via a dosing system to avoid splashes and contact with the skin. Wear appropriate PPE if contact is possible when connecting to dosing system. If airborne vapours or mists are generated provide adequate general and local exhaust ventilation to keep exposure below any statutory limits.

**Personal Protective Equipment**

**Respiratory protection:** Not needed in normal use. If vapour/aerosol is created use particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 14387)

**Hand protection:**

Wear chemical resistant protective gloves (EN 374)

Review condition of gloves when in use, especially for wear, cuts and breakthrough after prolonged contact.
Consult with a supplier of protective gloves for further information or for other tasks.

Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Wear chemical resistant clothing and boots if exposure/splashing may occur. Other body protection may be suitable depending on activity and possible exposure, e.g. apron, chemical-protection suit (meeting EN 14605).

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

**9 Physical & chemical properties**

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

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Clear, pale straw.</td>
</tr>
<tr>
<td>Odour</td>
<td>Product specific.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined for the mixture.</td>
</tr>
<tr>
<td>pH value 20 Deg C</td>
<td>13 - 14 (at 100%)</td>
</tr>
<tr>
<td>Melting point/Freezing point</td>
<td>Not determined for the mixture.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not determined for the mixture.</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt;100 deg C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined for the mixture.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not flammable.</td>
</tr>
<tr>
<td>Burning time</td>
<td>Not determined for the mixture.</td>
</tr>
<tr>
<td>Burning rate</td>
<td>Not determined for the mixture.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not determined for the mixture.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not determined for the mixture.</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.22 – 1.25</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Readily soluble in cold and hot water</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not determined for the mixture.</td>
</tr>
<tr>
<td>Auto ignition temperature</td>
<td>Not determined for the mixture.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined for the mixture.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not determined for the mixture.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>None</td>
</tr>
</tbody>
</table>

**9.2 Other Information**

No further relevant information available

**10 Stability and Reactivity**

**10.1 Reactivity**

No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical Stability**

Stable mixture under normal conditions or storage and use.

**10.3 Possibility of hazardous reactions**

Hazardous reactions will not occur in normal storage conditions.

**10.4 Conditions to avoid**

None known in normal storage conditions.

**10.5 Incompatible materials**

Will react with acids.

**10.6 Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**11 Toxicology**

**11.1 Information on toxicological effects**

Toxicological data for this mixture is not available as animal toxicity studies have not been carried out. Toxicological data for the raw materials is, where provided by the manufacturer, available on request.

**12 Ecological information**

**12.1 Toxicity**

Ecological Toxicity data for this mixture is not available as ecological toxicity studies have not been carried out. Ecological Toxicity data for the raw materials is, where provided by the manufacturer, available on request.

**12.2 Persistence and degradability**

Conclusion/Summary

Any surfactants contained in the product are biodegradable according to the requirements of the detergent regulation 648/2004/EC

**12.3 Bioaccumulative potential**

Conclusion/Summary

Not determined for the mixture.
12.4 Mobility in soil
Soil/water partition coefficient (KOC) Not determined for the mixture.
Mobility Not determined for the mixture.

12.5 Results of PBT and vPvB assessment
PBT Not applicable.
vPvB Not applicable.

12.6 Other adverse effects
No known significant effects or critical hazards.

13: Disposal considerations
13.1 Waste treatment methods
Waste from residues / unused products Dispose of in compliance with all Federal, state, provincial, and local laws and regulations.
EWC Code 20 01 29* - detergents containing dangerous substances
Empty packaging recommendation: Dispose of observing national or local regulations. (Can be cleaned with water)
EWC Code 20 01 39

14: Transport information

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>ADN/ADNR</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN 1824</td>
<td>SODIUM HYDROXIDE SOLUTION</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14.1 UN number

14.2 UN proper shipping name

14.3 Transport hazard class(es): 8

14.4 Packing group

14.5 Environmental hazards None

14.6 Special precautions for user Not known

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not Applicable

Other relevant information (ADR) Classification code: C5 Tunnel restriction code: E Hazard Identification No: 80

15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Ingredients according to EC Detergents Regulation 648/2004
<5% NTA (nitriloacetic acid) and salts
Phosphonates

15.2 Chemical safety assessment
A chemical safety assessment has not been carried out on the mixture

16: Other information

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

Reason for revision: Overall design adjusted in accordance with Regulation (EC) No 1907/2006, Annex II
* Indicates section(s) where changes have been made

Full text of the H and EUH phrases mentioned in section 3

H290 May be corrosive to metals
H314 Causes severe skin burns and eye damage
H351 Suspected of causing cancer
H302 Harmful if swallowed
H319 Causes serious eye irritation
H318 Causes serious eye damage

Abbreviations and acronyms
ATE Acute Toxicity Estimate
CLP Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008]
DNEL Derived No Effect Level
<table>
<thead>
<tr>
<th>EUH statement</th>
<th>CLP-specific Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted No Effect Concentration</td>
</tr>
<tr>
<td>REACH No</td>
<td>REACH registration number, without supplier specific part</td>
</tr>
</tbody>
</table>