1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name: MATCHLESS FIRE SET
Synonym(s): NSN: 4220-99-721-1870
SAFETY MARINE MATCHLESS FIRE SET

1.2 Uses and uses advised against

Use(s): DRY FUEL • MARINE APPLICATIONS

1.3 Details of the supplier of the safety data sheet

Supplier name: SAFETY MARINE AUSTRALIA
Address: 37 Levanswell Rd, Moorabbin, VIC, Australia, 3189
Telephone: +61 3 9555 5211
Fax: +61 3 9553 4380
Email: Not supplied
Website: http://www.safetymarineaust.com.au

1.4 Emergency telephone number(s)

Emergency: +61 3 9555 5211 or 000

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

GHS Classification(s):
- Flammable Solids: Category 2
- Skin Sensitisation: Category 1
- Respiratory Sensitisation: Category 1

2.2 Label elements

Signal word: DANGER
Pictograms

Hazard statement(s)
- H228: Flammable solid.
- H317: May cause an allergic skin reaction.
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Prevention statement(s)
- P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P240: Ground/bond container and receiving equipment.
- P241: Use explosion-proof electrical/ventilating/lighting equipment.
- P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
- P272: Contaminated work clothing should not be allowed out of the workplace.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P285: In case of inadequate ventilation wear respiratory protection.

Response statement(s)
- P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
- P304 + P341: IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
- P321: Specific treatment is advised - see first aid instructions.
- P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.
**MATCHLESS FIRE SET**

- **P342 + P311**
  - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- **P363**
  - Wash contaminated clothing before reuse.
- **P370 + P378**
  - In case of fire: Use appropriate media for extinction.

**Disposal statement(s)**
- **P501**
  - Dispose of contents/container in accordance with relevant regulations.

### 2.3 Other Hazards

No information provided.

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

#### 3.1 Substances / Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS number</th>
<th>EC number</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHENAMINE</td>
<td>100-97-0</td>
<td>202-905-8</td>
<td>&gt;80%</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

**Eye**
- If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

**Inhalation**
- If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

**Skin**
- If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

**Ingestion**
- For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once).

**First aid facilities**
- Eye wash facilities and safety shower should be available.

#### 4.2 Most important symptoms and effects, both acute and delayed

No information provided.

#### 4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

### 5. FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

Water jets. Prevent contamination of drains and waterways.

#### 5.2 Special hazards arising from the substance or mixture

Flammable - potentially explosive dust. May evolve toxic gases (formaldehyde, amines and carbon/nitrogen oxides) when heated to decomposition.

#### 5.3 Advice for firefighters

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

#### 5.4 Hazchem code

1Z

- 1 Coarse Water Spray.
- Z Wear full fire kit and breathing apparatus. Contain spill and run-off.

### 6. ACCIDENTAL RELEASE MEASURES
6.1 Personal precautions, protective equipment and emergency procedures
Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Contact emergency services where appropriate.

6.2 Environmental precautions
Prevent product from entering drains and waterways.

6.3 Methods of cleaning up
Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

6.4 Reference to other sections
See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities
Store tightly sealed in a cool, dry, well ventilated area, removed from incompatible substances, direct sunlight, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills.

7.3 Specific end use(s)
No information provided.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

Exposure standards
No exposure standards have been entered for this product.

Biological limits
No biological limit values have been entered for this product.

8.2 Exposure controls

Engineering Controls
Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Maintain dust levels below the recommended exposure standard.

PPE

Eye/Face
Wear dust-proof goggles.

Hand
Wear PVC or rubber gloves.

Body
Wear coveralls.

Respiratory
Where an inhalation risk exists, wear a Class P1 (Particulate) respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance
WHITE SOLID

Odour
AMMONIA ODOUR

Odour Threshold
NOT AVAILABLE

pH
NOT AVAILABLE
**Product name** MATCHLESS FIRE SET

**Melting Point** 280°C
**Boiling Point** NOT AVAILABLE
**Flash Point** 250°C
**Evaporation Rate** NOT AVAILABLE
**Flammability** FLAMMABLE SOLID
**Upper Explosion Limit** NOT RELEVANT
**Lower Explosion Limit** NOT RELEVANT
**Vapour Pressure** 0.0035 hPa @ 20°C
**Vapour Density** NOT AVAILABLE
**Solubility (water)** 100 to 874 g/L @ 20°C
**Partition Coefficient** NOT AVAILABLE
**Autoignition Temperature** 390°C
**Decomposition Temperature** NOT AVAILABLE
**Viscosity** NOT AVAILABLE
**Explosive Properties** NOT AVAILABLE
**Oxidising Properties** NOT AVAILABLE
**Specific Gravity** 1.33

9.2 Other information
No information provided.

10. STABILITY AND REACTIVITY

10.1 Reactivity
Carefully review all information in sections 10.2 to 10.6.

10.2 Chemical stability
Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions
Hazardous polymerization is not expected to occur.

10.4 Conditions to avoid
Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials
Incompatible (violently) with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), anhydrides (e.g. acetic anhydride), iodoform (if heated), sodium oxide, heat and ignition sources.

10.6 Hazardous decomposition products
May evolve toxic gases (formaldehyde, amines and carbon/nitrogen oxides) when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Health Hazard Summary
No information provided.

No information provided.
MATCHLESS FIRE SET

METHENAMINE (100-97-0)
- LD50 (Ingestion): 569 mg/kg (mouse)
- LD50 (Intravenous): 9200 mg/kg (mouse)
- LD50 (Subcutaneous): 215 mg/kg (mouse)
- LDLo (Subcutaneous): 200 mg/kg (rat)
- TCLo (Inhalation): 350 mg/m³/2 hours/3 weeks (rat)

12. ECOLOGICAL INFORMATION

12.1 Toxicity
No information provided.

12.2 Persistence and degradability
No information provided.

12.3 Bioaccumulative potential
No information provided.

12.4 Mobility in soil
No information provided.

12.5 Results of PBT and vPvB assessment
No information provided.

12.6 Other adverse effects
If released to the atmosphere hexamine will exist solely as a vapour in the ambient atmosphere where it will be rapidly (< 1 day) degraded. Expected to have high mobility in soil. Hydrolysis may be important in some soils. Hydrolyses in water at pH 3 or 7 (with an estimated half-life of 1 day). Readily biodegradable. Potential for bioconcentration is low.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Waste disposal
For small amounts, absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information if disposing of large quantities (if required). Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.

Legislation
Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

<table>
<thead>
<tr>
<th>Land Transport (ADG)</th>
<th>Sea Transport (IMDG/IMO)</th>
<th>Air Transport (IATA/ICAO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1328</td>
<td>1328</td>
<td>1328</td>
</tr>
</tbody>
</table>

14.1 UN number
14.2 UN proper shipping name
HEXAMETHYLENETETRAMINE
**Product name**  
MATCHLESS FIRE SET

### 14.3 Transport hazard classes

<table>
<thead>
<tr>
<th>DG division</th>
<th>4.1</th>
<th>4.1</th>
<th>4.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidiary risk(s)</td>
<td>None Allocated</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### 14.4 Packing group

| III | III | III |

### 14.5 Environmental hazards

None Allocated

### 14.6 Special precautions for user

<table>
<thead>
<tr>
<th>Hazchem Code</th>
<th>1Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS</td>
<td>F-A, S-G</td>
</tr>
</tbody>
</table>

### 15. REGULATORY INFORMATION

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

**Poison schedule**

Classified as a Schedule 5 Poison using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

**Classifications**

F - Flammable  
Xi - Irritant

**Risk phrases**

R11: Highly flammable.  
R42/43: May cause sensitisation by inhalation and skin contact.

**Safety phrases**

S2: Keep out of reach of children.  
S13: Keep away from food, drink and animal feeding stuffs.  
S22: Do not breathe dust.  
S24: Avoid contact with skin.  
S35: This material and its container must be disposed of in a safe way.  
S37: Wear suitable gloves.  
S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

**Inventory listing(s)**

AUSTRALIA: AICS (Australian Inventory of Chemical Substances)  
All components are listed on AICS, or are exempt.

#### 15.2 Chemical safety assessment

No information provided.

### 16. OTHER INFORMATION

**Additional information**

AMINE: CAUTION: THIS PRODUCT CONTAINS AN AMINE. DO NOT ADD NITRITES or other NITROSATING AGENTS to this product due to the potential for NITROSAMINE formation. Nitrosamines are potent carcinogens and some have been shown to cause severe acute (heart, brain, blood, liver - kidney) damage as well as chronic effects (reproductive effects, liver - lung and kidney tumours).

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

HEALTH EFFECTS FROM EXPOSURE:  
It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.
MATCHLESS FIRE SET

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:
The recommendation for protective equipment contained within this report is provided as a guide only.
Factors such as method of application, working environment, quantity used, product concentration and the
availability of engineering controls should be considered before final selection of personal protective
equipment is made.

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>CAS #</td>
<td>Chemical Abstract Service number - used to uniquely identify chemical compounds</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
</tr>
<tr>
<td>EC No.</td>
<td>EC No - European Community Number</td>
</tr>
<tr>
<td>EMS</td>
<td>Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
</tr>
<tr>
<td>GTEPG</td>
<td>Group Text Emergency Procedure Guide</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration, 50% / Median Lethal Concentration</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose, 50% / Median Lethal Dose</td>
</tr>
<tr>
<td>mg/m³</td>
<td>Milligrams per Cubic Metre</td>
</tr>
<tr>
<td>OEL</td>
<td>Occupational Exposure Limit</td>
</tr>
<tr>
<td>pH</td>
<td>relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).</td>
</tr>
<tr>
<td>ppm</td>
<td>Parts Per Million</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-Term Exposure Limit</td>
</tr>
<tr>
<td>STOT-RE</td>
<td>Specific target organ toxicity (repeated exposure)</td>
</tr>
<tr>
<td>STOT-SE</td>
<td>Specific target organ toxicity (single exposure)</td>
</tr>
<tr>
<td>SUSMP</td>
<td>Standard for the Uniform Scheduling of Medicines and Poisons</td>
</tr>
<tr>
<td>SWA</td>
<td>Safe Work Australia</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
</tr>
</tbody>
</table>

Report Status
This ChemAlert report has been independently compiled by RMT’s scientific department utilising the original Safety Data Sheet (“SDS”) for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. It is an independent collation by RMT of information obtained from the original SDS for this product. Its content has not been authorised or verified by the manufacturer / distributor of the chemical to which it relates.

This ChemAlert report does not constitute the manufacturer’s original SDS and is not intended to be a replacement for same. It is provided to subscribers of ChemAlert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this ChemAlert report, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this ChemAlert report.

Prepared By
Risk Management Technologies
5 Ventnor Ave, West Perth
Western Australia 6005
Phone: +61 8 9322 1711
Fax: +61 8 9322 1794
Email: info@rmt.com.au
Web: www.rmt.com.au
MATCHLESS FIRE SET

Last Reviewed: 16 Feb 2016
Date Printed: 20 Oct 2016
Based on SDS dated: 14 Aug 2012

End of Report