Section 1 – Identification of the material and supplier

Product Name: Clear Blue (DEF)
Other Names: SCR Urea Solution, Diesel Emission Fluid (DEF)
Recommended Use: Use in conjunction with Selective Catalytic Reduction (SCR) systems for reducing the level of NO\textsubscript{x} gas emissions generated from diesel combustion engines
Supplier: Greensafe Australia
PO Box 4186, Keilor Downs, Victoria, 3038
Contact Number: 0422 369 888
Emergency Number: 0422 369 888
Email: info@greensafeaustralia.com.au

Section 2 – Hazards Identification

Not Classified as Hazardous According to NOHSC Criteria
Not Classified as a Dangerous Good according ADG 7
RISK Phase: None
Safety Phrases: S24 Avoid contact with skin
S23 Do not breathe gas/fumes/vapour/spray
Section 3 – Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No</th>
<th>Chemical Formula</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea</td>
<td>57-13-6</td>
<td>((\text{NH}_2)\text{CO})</td>
<td>30 – 35%%</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>(\text{H}_2\text{O})</td>
<td>&gt;60%</td>
</tr>
</tbody>
</table>

Section 4 – First Aid Measures

**Eyes**  
Wash out with water for 15 minutes  
If irritation continues seek medical attention

**Skin**  
Wash effective area with running water

**Inhalation**  
Remove person from contaminated area and seek medical advice

**Ingestion**  
Contact the Poisons Information Centre on 13 11 26

**Medical Attention and Special Treatment**  
Treat symptomatically

Section 5 – Fire Fighting Measures

**Extinguishing Media**  
No restrictions on the type of extinguishing media

**Hazards From Combustion Products**  
Combustion of product may produce NOx gases under certain conditions

**Fire Fighting**  
Restrict any spillage from entering stormwater drains and waterways  
Use breathing apparatus and protective clothing  
Keep sealed containers cool with water spray

**Hazchem Code**  
None
**Section 6 – Accidental Release Measures**

**Minor Spill**
Use a standard spill kit absorbent to stop the flow of the product. Use a broom to covers the spill completely. Remove the contaminated absorbent and place in a sealed container.

**Major Spill**
Block of any stormwater isolation valves that is available. Use absorbance, sand bags or soil to block any stormwater drains. Notify the Fire Brigade. Call a waste disposal contractor with a liquid vacuum tanker to assist in recovering the product from the ground. After the majority of the spill has been collected the area should be covered in absorbent and swept up and collected in a labelled container. Seek advice from your local EPA office regrading the disposal of any contaminated product.

**Section 7 – Handling and Storage**

**Precautions for Safe Handling**
Use fixed pipework wherever possible to reduce contract while filling containers.

Use basic PPE while handling the product.

If contact with clothing occurs, the affected clothing should be remove and the affected area washed with running water.

**Conditions for Safe Storage**
Store the product only in the containers it was supplied in.

Containers should be stored in bunded or contained areas.

Containers must always be labelled clearly.

Containers should be stored undercover.

Use barriers or signs to prevent containers from being damaged by traffic.

**Incompatible Chemicals**
Avoid contract with oxidising agents, acids and caustic materials.
Section 8 – Exposure Controls/Personal Protection

Exposure Controls
Use in a well ventilated environment

Personal Protective Equipment
Only basic PPE is required when using this product. The use of safety glasses, PVC gloves and overalls is recommended

Section 9 – Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear to Hazy Liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight</td>
</tr>
<tr>
<td>pH (1% solution)</td>
<td>9–10</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not Available</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>Not Available</td>
</tr>
<tr>
<td>Boiling Pt</td>
<td>100 °C</td>
</tr>
<tr>
<td>Freezing Pt</td>
<td>12 °C</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>Soluble</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.08 @ 20 °C</td>
</tr>
<tr>
<td>Flash Pt</td>
<td>Non Flammable</td>
</tr>
</tbody>
</table>

Section 10 – Chemical Stability

This product is consider stable under normal conditions

Section 11 – Toxicological Information

Health Effects
This product is not considered harmful and will only cause discomfort from inhalation of mist/fumes, ingestion or eye contact. Seek medical attention if discomfort is noticed.

Long Term Health Effects
No long term effects are expected, care should be taken to reduce exposure to all chemicals

Toxicity Data
Urea LD50 (ingestion) 8500 mg/kg (rat)
Section 12–Ecological Information

Ecotoxicity
In concentrated form this product can be harmful to plants and animals (flora and fauna).
If allowed into waterways this product can promote the growth of toxic alga booms.

Persistence in Soil and Water Low
Mobility in Soil and Water High
Bioaccumulation Low

Section 13–Disposal Considerations

Spill Disposal
Recycling of this product as a fertiliser may be possible once a contamination check has been completed.
Clearly identify all contaminants and consult your local EPA office

Section 14–Transport Information

Not Regulated as a Dangerous Good for Transport by ADG 7

Section 15–Regulatory Information

Drugs and Poisons
This product has not been listed on the Drugs and Poisons Schedule
Urea and Water are listed on the Australian Inventory of Chemical Substance (AICS)
Section 16–Other Information

This MSDS has been prepared using the National Code of Practice for the preparation Material Safety Data Sheets.

\[
\begin{align*}
\text{pH} & \quad = \text{logarithmic scale from} \quad 0 \quad \text{to} \quad 14. \quad 0 = \text{Strongly acidic} \\
& \quad \quad 7 = \text{Neutral and} \\
& \quad \quad 14 = \text{Strongly caustic or alkaline}
\end{align*}
\]

\[
\begin{align*}
\text{°C} & \quad = \text{Degrees Celsius}
\end{align*}
\]