SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name

Eclipse™ Extreme

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use

Fire extinguishing agent.

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Importer

Sandvik Mining Australia
Daws Road Melrose Park
Adelaide South Australia
email: firesuppressionsales@sandvik.com

1.4. Emergency telephone number

UK National Health Service (NHS) call 111 or, in life-threatening emergencies, call 999

WAL National Health Service (NHS) call 0845 46 47

IE National Poisons Information Centre
+353 1 809 2566 or +353 1 837 9964 (only for healthcare professionals)

UK National Chemical Emergency Centre (NCEC):

For Europe and if no country-specific number listed: +44 1866 407 333
For Brazil: +55 11 3197 5891
For US: +1 202 464 2554
For Mexico: +52 55 5004 8763
For Africa: +27 21 300 2732
For Australia: +61 2 8014 4558
For NZ: +649 929 1483
For China (mainland): +86 532 8388 9090
For China (outside): +85 512 8090 3041
(24 hours per day/7 days per week)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1272/2008/EC)

Not classified.
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>EC-No</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Classification (2012/2008/EC)</th>
<th>REACH Registration Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium acetate</td>
<td>204-822-2</td>
<td>127-08-2</td>
<td>&gt;45</td>
<td>NC</td>
<td>01-2119486975-16</td>
</tr>
<tr>
<td>Hydrotrope</td>
<td>-</td>
<td>PROPRIETARY</td>
<td>&lt;1</td>
<td>Skin Irr. 2 H315 Eye Irr. 2 H319</td>
<td>No data available</td>
</tr>
<tr>
<td>Fluoroosurfactant</td>
<td>-</td>
<td>PROPRIETARY</td>
<td>&lt;1</td>
<td>Flam. liquids 3 H226 Eye Irr. 2A H319</td>
<td>No data available</td>
</tr>
<tr>
<td>D-glucopyranose, oligomers, decyl octyl glycosides</td>
<td>500-220-1</td>
<td>68515-73-1</td>
<td>&lt;1</td>
<td>Eye Dam. 1 H318</td>
<td>01-2119488530-36</td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>203-961-6</td>
<td>112-34-5</td>
<td>&lt;1</td>
<td>Eye Irr. 2 H319</td>
<td>01-2119475104-44</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

**General advice**
No hazards which require special first aid measures

**Eye contact**
Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately if symptoms occur.

**Skin contact**
Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

**Ingestion**
Clean mouth with water and afterwards drink plenty of water. Get medical attention immediately if symptoms occur.

**Inhalation**
Move victim to fresh air. Get medical attention immediately if symptoms occur.

**Protection of first-aiders**
Use personal protective equipment. Avoid contact with skin, eyes and clothing.

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

**Main symptoms**
If inhaled: Coughing and/or wheezing. If in eyes: Pain. If on skin: Redness.

4.3. Indication of any immediate medical attention and special treatment needed

**Notes to physician**
Treat symptomatically.
SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media  The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media None known.

5.2. Special hazards arising from the substance or mixture

Special Hazard  Thermal decomposition can lead to release of irritating and toxic gases and vapours (Carbon monoxide (CO), Carbon dioxide (CO₂), Metal oxides).

5.3. Advice for firefighters

Fire fighting measures  Dilute toxic gases with water spray.

Special protective equipment for fire-fighters  Wear self-contained breathing apparatus and protective suit.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid contact with skin, eyes and inhalation of vapours. Dispose of in accordance with local regulations.

6.2. Environmental precautions

Should not be released into the environment.

6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect in closed and suitable containers for disposal.

6.4. Reference to other sections

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Keep in a dry, cool and well-ventilated place. Keep away from: Strong acids, Strong oxidising agents.

7.3. Specific end use(s)

Exposure scenario  Not available.

Other information  Not available.
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>European Union</th>
<th>The United Kingdom</th>
<th>France</th>
<th>Spain</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>TWA: 67.5 mg/m³</td>
<td>STEL: 15 ppm</td>
<td>TWA: 10 ppm</td>
<td>VLA-ED: 67.5 mg/m³</td>
<td>TWA: 100 mg/m³</td>
</tr>
<tr>
<td></td>
<td>STEL: 101.2 mg/m³</td>
<td>TWA: 10 ppm</td>
<td>VLA-EC: 101.2 mg/m³</td>
<td>TWA: 10 ppm</td>
<td>MAK: 67 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA: 67.5 mg/m³</td>
<td>STEL: 101.2 mg/m³</td>
<td>TWA: 10 ppm</td>
<td>TWA: 100 mg/m³</td>
<td>TWA: 100 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Italy</th>
<th>Portugal</th>
<th>Netherlands</th>
<th>Denmark</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>TWA: 67.5 mg/m³</td>
<td>STEL: 101.2 mg/m³</td>
<td>TWA: 100 mg/m³</td>
<td>TWA: 10 ppm</td>
<td>NDS: 67 mg/m³</td>
</tr>
<tr>
<td></td>
<td>WG: 50 mg/m³</td>
<td>STEL: 100 mg/m³</td>
<td>STEL: 200 mg/m³</td>
<td>NDSCh: 100 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Belgium</th>
<th>Sweden</th>
<th>Hungary</th>
<th>Finland</th>
<th>Czech Republic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>TWA: 67.5 mg/m³</td>
<td>STEL: 101.2 mg/m³</td>
<td>TWA: 100 mg/m³</td>
<td>STV: 200 mg/m³</td>
<td>TWA: 68 mg/m³</td>
</tr>
</tbody>
</table>

### Recommended monitoring procedures

No information available.

### Derived No Effect Level (DNEL)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Worker - inhalative, long-term - local</th>
<th>Worker - dermal, long-term - local</th>
<th>Worker - inhalative, short-term - local</th>
<th>Worker - dermal, short-term - local</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>67.5 mg/m³</td>
<td>101.2 mg/m³</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Worker - inhalative, long-term - systemic</th>
<th>Worker - dermal, long-term - systemic</th>
<th>Worker - inhalative, short-term - systemic</th>
<th>Worker - dermal, short-term - systemic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>67.5 mg/m³</td>
<td>83 mg/kg bw/day</td>
<td>67.5 mg/m³</td>
<td>83 mg/kg bw/day</td>
</tr>
<tr>
<td>Potassium acetate</td>
<td>1265.65 mg/m³</td>
<td>14.36 mg/kg bw/d</td>
<td>1265.65 mg/m³</td>
<td>86.14 mg/kg bw/d</td>
</tr>
</tbody>
</table>

### Predicted No Effect Concentration (PNEC)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Freshwater</th>
<th>Marine water</th>
<th>Intermittent release</th>
<th>Sewage treatment plant</th>
<th>Freshwater sediment</th>
<th>Marine sediment</th>
<th>Soil</th>
<th>Oral</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>1.1 mg/L</td>
<td>0.11 mg/L</td>
<td>200 mg/L</td>
<td>4.4 mg/kg sediment dw</td>
<td>0.44 mg/kg sediment dw</td>
<td>0.32 mg/kg soil dw</td>
<td>56 mg/kg food</td>
<td></td>
</tr>
<tr>
<td>Potassium acetate</td>
<td>0.46 mg/L</td>
<td>0.046 mg/L</td>
<td>0.862 g/L</td>
<td>0.00185 mg/kg</td>
<td>0.000185 mg/kg</td>
<td>0.00185 mg/kg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 8.2. Exposure controls

#### Appropriate engineering controls
Ensure adequate ventilation, especially in confined areas.

#### Individual protection measures, such as personal protective equipment

- **Eye Protection**: Safety glasses with side-shields.
- **Hand Protection**: Nitrile rubber (NBR): > 0.4 mm. Break through time: >8h.
- **Skin and body protection**: Long sleeved clothing.
- **Respiratory protection**: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators: Half mask.
- **Recommended Filter Type**: A

#### Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

#### Environmental Exposure Controls
The product should not be allowed to enter drains, water courses or the soil.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state @20°C</td>
<td>Liquid. (Crystalline Powder when shipped)</td>
</tr>
<tr>
<td>Appearance</td>
<td>Foam</td>
</tr>
<tr>
<td>Colour</td>
<td>Clear</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>pH</td>
<td>8.95</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&lt;10mm Hg (@20 °C)</td>
</tr>
<tr>
<td>Vapour density</td>
<td>No information available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble</td>
</tr>
<tr>
<td>Partition Coefficient (n-octanol/water)</td>
<td>No information available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>&lt;100 °C</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No information available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No information available</td>
</tr>
</tbody>
</table>

9.2 Other information

Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not reactive under recommended storage and handling conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

Strong acids. Strong oxidising agents.

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapours (Carbon monoxide (CO), Carbon dioxide (CO₂), Metal oxides).
SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Ingestion  No known effect.
Skin contact  No known effect.
Inhalation  No known effect.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>3384 mg/kg (Rat)</td>
<td>2700 mg/kg (Rabbit)</td>
<td></td>
</tr>
<tr>
<td>Potassium acetate</td>
<td>3250 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skin corrosion/irritation  No known effect.
Serious eye damage/irritation  No known effect.
Respiratory or skin sensitisation  No known effect.
Germ cell mutagenicity  Not known to cause heritable genetic damage.
Carcinogenicity  Contains no ingredient listed as a carcinogen.
Reproductive toxicity  Not known to cause birth defects or have a deleterious effect on a developing fetus. Not known to adversely affect reproductive functions and organs.
STOT-single exposure  No known effect.
STOT-repeated exposure  No known effect.
Aspiration hazard  No known effect.
SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>EC50: &gt;100 mg/L</td>
<td>LC50: 1300 mg/L Lepomis</td>
<td>EC50: 2850 mg/L Daphnia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Desmodesmus subspicatus 96 h</td>
<td>macrochirus 96 h static</td>
<td>magna 24 h</td>
<td></td>
</tr>
<tr>
<td>Potassium acetate</td>
<td>EC50: &gt;1000 mg/L 72h</td>
<td>LC50: &gt;992.7 mg/L 96h</td>
<td>EC50: &gt;919 mg/L 24/48h Daphnia magna</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skeletonema costatum</td>
<td>Danio rerio</td>
<td>magna 48 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oncorhynchus mykiss</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Log P ow</th>
<th>Bioconcentration factor (BCF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium acetate</td>
<td>-3.72</td>
<td></td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

- Waste from residues / unused products: Dispose of in accordance with local regulations.
- Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.
SECTION 14: TRANSPORT INFORMATION

According to: ADR, RID, ADN, IMDG, IATA/ICAO.

14.1. UN number
Not regulated.

14.2. UN proper shipping name
Not regulated.

14.3. Transport hazard class(es)
Not regulated.

14.4. Packing group
Not regulated.

14.5 Environmental hazards
Not applicable.

14.6 Special precautions for user
Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
Not applicable.

SECTION 15: REGULATORY INFORMATION

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

Restrictions on use None.
Other Regulations None.

15.2 Chemical safety assessment
Not required.

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H315 - Causes skin irritation
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H226 - Flammable liquid and vapour

Revision Note Format updated in compliance with European REACH and CLP regulations.

Training Advice Workers must be trained in the proper use and handling of this product as required under applicable regulations.

Abbreviations and acronyms
EC: European Commission
REACH: Registration, Evaluation, Authorisation and Restriction of Chemical substances
DNEL: Derived No Effect Level
PNEC: Predicted No Effect Concentration
STOT: Specific Target Organ Toxicity
PBT: Persistent, Bioaccumulative, Toxic
vPvB: very Persistent and very Bioaccumulating
ADR: Accord européen relatif au transport international des marchandises Dangereuses
par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement concernant le transport international ferroviaire des marchandises dangereuses (Regulations for the International Transport of Dangerous Goods by Rail)
ADN: Accord européen relatif au transport international des marchandises Dangereuses par voies de Navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
IMDG: International Maritime Dangerous Goods Code
ICAO: International Civil Aviation Organization

SDS No. SV00002

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet