SAFETY DATA SHEET
Astonish Anti-fog Glass Cleaner

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

1.1. Product identifier
- Product name: Astonish Anti-fog Glass Cleaner
- Product number: 153101
- Internal identification: F2V2

1.2. Relevant identified uses of the substance or mixture and uses advised against
- Identified uses: Cleaning windows & glass providing an anti-fog effect.

1.3. Details of the supplier of the safety data sheet
- Supplier: The London Oil Refining Company Ltd
  Astonish House
  Unit 1 Premier Point
  Staithgate Lane
  Bradford BD6 1DW
  www.astonishcleaners.com
  (01274) 767440 (office hours only)
  (01274) 726285
- Contact person: info@astonish.co.uk

1.4. Emergency telephone number
- Emergency telephone: (01274) 767440 (office hours only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
- Classification (EC 1272/2008)
  - Physical hazards: Not Classified
  - Health hazards: Not Classified
  - Environmental hazards: Not Classified

2.2. Label elements
- Hazard statements: NC Not Classified
- Precautionary statements: P102 Keep out of reach of children.
  P103 Read label before use.

2.3. Other hazards
- None

Additional Labelling
- Detergent labelling: Contains 1,2-benzisothiazol-3(2H)-one, 2-methylisothiazol-3(2H)-one
SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

**Isopropanol**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Concentration</th>
<th>CAS number:</th>
<th>EC number:</th>
<th>REACH registration number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol</td>
<td>5-10%</td>
<td>67-63-0</td>
<td>200-661-7</td>
<td>01-2119457558-25-0000</td>
</tr>
</tbody>
</table>

**Classification**

- Flam. Liq. 2 - H225
- Eye Irrit. 2 - H319
- STOT SE 3 - H336

**2-methylisothiazol-3(2H)-one**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Concentration</th>
<th>CAS number:</th>
<th>EC number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-methylisothiazol-3(2H)-one</td>
<td>&lt;1%</td>
<td>2682-20-4</td>
<td>220-239-6</td>
</tr>
</tbody>
</table>

**Classification**

- Acute Tox. 3 - H301
- Acute Tox. 3 - H311
- Acute Tox. 2 - H330
- Skin Corr. 1B - H314
- Skin Sens. 1 - H317
- STOT SE 3 - H335
- Aquatic Acute 1 - H400
- Aquatic Chronic 2 - H411

**1,2-benzisothiazol-3(2H)-one**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Concentration</th>
<th>CAS number:</th>
<th>EC number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-benzisothiazol-3(2H)-one</td>
<td>&lt;1%</td>
<td>2634-33-5</td>
<td>220-120-9</td>
</tr>
</tbody>
</table>

**Classification**

- Acute Tox. 4 - H302
- Skin Irrit. 2 - H315
- Eye Dam. 1 - H318
- Skin Sens. 1 - H317
- Aquatic Acute 1 - H400
- Aquatic Chronic 2 - H411

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Inhalation**

Remove exposure and give water to drink if mouth irritation experienced. Seek medical advice if recovery not rapid.

**Ingestion**

Drink water. If symptoms persist seek medical advice.

**Skin contact**

Rinse affected area with water.

**Eye contact**

Rinse thoroughly with water for several minutes. If symptoms persist seek medical advice.

### 4.2. Most important symptoms and effects, both acute and delayed
Astonish Anti-fog Glass Cleaner

Inhalation Possible mild irritation of breathing passage and possible mouth irritation.
Ingestion Possible mild stomach upset and mild soreness of mouth.
Skin contact Possible mild transient irritation of skin.
Eye contact Possible mild irritation, redness and soreness.

4.3. Indication of any immediate medical attention and special treatment needed
Notes for the doctor No data available
Specific treatments No data available.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media Use extinguisher suitable to cause of fire.

5.2. Special hazards arising from the substance or mixture
Specific hazards Product does not support combustion, minimal fire hazard. Minimal quantities of oxides of carbon may be produced.

5.3. Advice for firefighters
Protective actions during firefighting Use protection suitable to cause of fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Personal precautions Avoid contact with skin and eyes.

6.2. Environmental precautions
Environmental precautions Product is intended to be rinsed away to sewer after use. For bigger spillages non-household spillages prevent entry into sewer or drains.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up Absorb household spillages with e.g kitchen roll and dispose of in bin. Wipe affected area clean with a damp cloth.

6.4. Reference to other sections
Reference to other sections None

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Usage precautions Use as instructed on label. Avoid breathing spray. Point spray away from face.

7.2. Conditions for safe storage, including any incompatibilities
Storage precautions Store in ambient conditions.

7.3. Specific end use(s)
Specific end use(s) Cleaning windows & glass providing an anti-fog effect.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters
Occupational exposure limits Isopropanol
Astonish Anti-fog Glass Cleaner

Long-term exposure limit (8-hour TWA): EH40 WEL, WEL 400 ppm  999 mg/m³
Short-term exposure limit (15-minute):  EH40 WEL 500 ppm  1,250 mg/m³
WEL = Workplace Exposure Limit

8.2. Exposure controls

Environmental exposure controls
This product does not pose a hazard in normal use. Care should be taken not to inhale spray.
No personal protective equipment is necessary.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear pale green liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Pale Green</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild Alcoholic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not known.</td>
</tr>
<tr>
<td>pH</td>
<td>pH (concentrated solution): 5.5 - 8.5</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not known.</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>Not measured (&gt;100°C)</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not known.</td>
</tr>
<tr>
<td>Evaporation factor</td>
<td>Not known.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Does not ignite. Not flammable</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Does not ignite.</td>
</tr>
<tr>
<td>Other flammability</td>
<td>Not relevant.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>&gt; 1 (Air=1)</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.900 - 0.996 @ 20°C</td>
</tr>
<tr>
<td>Bulk density</td>
<td>Not relevant.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>Not known.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not known.</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not measured</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>None</td>
</tr>
<tr>
<td>Explosive under the influence of a flame</td>
<td>Not considered to be explosive.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

9.2. Other information

Other information
None.
Astonish Anti-fog Glass Cleaner

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity No reactivity hazards expected.

10.2. Chemical stability
Stability Stable under normal conditions.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions None under normal conditions.

10.4. Conditions to avoid
Conditions to avoid None known.

10.5. Incompatible materials
Materials to avoid None known.

10.6. Hazardous decomposition products
Hazardous decomposition products Carbon oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicological effects This mixture has not been tested. Based on the available data of the ingredients the classification criteria are not met.

Isopropanol

Acute toxicity - oral
Acute toxicity oral (LD₅₀ mg/kg) 5,820.0
Species Rat
ATE oral (mg/kg) 5,820.0

Acute toxicity - dermal
Acute toxicity dermal (LD₅₀ mg/kg) 12,800.0
Species Rabbit
ATE dermal (mg/kg) 12,800.0

SECTION 12: Ecological Information

12.1. Toxicity
Toxicity The mixture has not been tested. Based on the available data of the ingredients the classification criteria are not met.

Isopropanol

Acute toxicity - fish LC₅₀, 96 hours: 9640 mg/l, Pimephales promelas (Fat-head Minnow)
Astonish Anti-fog Glass Cleaner

Acute toxicity - aquatic invertebrates
EC₅₀, 48 hours: 13299 mg/l, Daphnia magna

Acute toxicity - aquatic plants
EC₅₀, 72 hours: 1.000 mg/l, Desmodesmus subspicatus

Acute toxicity - microorganisms
EC₅₀, >1000 mg/l, Activated sludge

12.2. Persistence and degradability
Persistence and degradability
Contains detergents that satisfy the bio-degradation requirements of directive 648/2004/EC.

Isopropanol

Biodegradation
- Degradation 95: 21 days

12.3. Bioaccumulative potential
Bioaccumulative potential
Not determined.

Partition coefficient
Not known.

12.4. Mobility in soil
Mobility
The components of the mixture are readily absorbed into soil and are mobile in water environment.

12.5. Results of PBT and vPvB assessment
Results of PBT and vPvB assessment
No data available.

12.6. Other adverse effects
Other adverse effects
Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
General information
Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment. Dispose of contaminated packaging in the same way as the product itself. Non-contaminated packages may be recycled.

SECTION 14: Transport information

General
Not regulated.

14.1. UN number
Not applicable.

14.2. UN proper shipping name
Not applicable.

14.3. Transport hazard class(es)
Not regulated.

14.4. Packing group
Not applicable.

14.5. Environmental hazards
Astonish Anti-fog Glass Cleaner

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user
Not applicable.

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

SECTION 15: Regulatory information

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

EU legislation

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet
ATE: Acute Toxicity Estimate.
CAS: Chemical Abstracts Service.
EC₅₀: 50% of maximal Effective Concentration.
LC₅₀: Lethal Concentration to 50 % of a test population.
LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Persistent and Very Bioaccumulative.

General information
Note: The hazard statements below are explanations of phrases used in the SDS as abbreviations and DO NOT apply to the product. The statements applicable to the product are those identified in Section 2 only.

Revision comments
Updated Supplier Information

Issued by
The London Oil Refining Company Ltd

Revision date
22/09/2017

Revision
2.2

Supersedes date
25/08/2016

SDS number
5011

Risk phrases in full
R11 Highly flammable.
R22 Harmful if swallowed.
R23 Toxic by inhalation.
R34 Causes burns.
R36 Irritating to eyes.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R43 May cause sensitisation by skin contact.
R50 Very toxic to aquatic organisms.
R67 Vapours may cause drowsiness and dizziness.
Astonish Anti-fog Glass Cleaner

Hazard statements in full

H225 Highly flammable liquid and vapour.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.