# SAFETY DATA SHEET

## GLASS GUARD

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

1. **Product identifier**
   - **Product name**: GLASS GUARD
   - **Product number**: B1524/01
   - **Internal identification**: L1524

2. **Relevant identified uses of the substance or mixture and uses advised against**
   - **Identified uses**: Glass Treatment

3. **Details of the supplier of the safety data sheet**
   - **Supplier**: GARDX PROTECTION LTD
     - UNIT 7 CLOVELLY BUSINESS PARK
     - CLOVELLY ROAD
     - SOUTHBOURNE, EMSWORTH
     - HANTS
     - PO10 8PE
     - +44 (0)1243 376426
     - product@gardx.co.uk

4. **Emergency telephone number**
   - **Emergency telephone**: +44 (0) 777 8505 330 (24 hrs)

### SECTION 2: Hazards identification

5. **Classification of the substance or mixture**
   - **Physical hazards**: Flam. Liq. 2 - H225
   - **Health hazards**: Eye Irrit. 2 - H319
   - **Environmental hazards**: Not Classified

6. **Label elements**
   - **Pictogram**
   - **Signal word**: Danger
   - **Hazard statements**: H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation.
GLASS GUARD

Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves, eye and face protection.
P302+P352 IF ON SKIN: Wash with plenty of 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.
P501 Dispose of contents/container in accordance with national regulations.

2.3. Other hazards
This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>Ethyl alcohol</th>
<th>30-60%</th>
</tr>
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<tbody>
<tr>
<td>CAS number: 64-17-5</td>
<td></td>
</tr>
<tr>
<td>EC number: 200-578-6</td>
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<tr>
<td>REACH registration number: 01-2119457610-43-xxxx</td>
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<table>
<thead>
<tr>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 2 - H225</td>
</tr>
<tr>
<td>Eye Irrit. 2 - H319</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>METHANOL</th>
<th>1-5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 67-56-1</td>
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</tr>
<tr>
<td>EC number: 200-659-6</td>
<td></td>
</tr>
<tr>
<td>REACH registration number: 01-211943307-44</td>
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</table>

<table>
<thead>
<tr>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 2 - H225</td>
</tr>
<tr>
<td>Acute Tox. 3 - H301</td>
</tr>
<tr>
<td>Acute Tox. 3 - H311</td>
</tr>
<tr>
<td>Acute Tox. 3 - H331</td>
</tr>
<tr>
<td>STOT SE 1 - H370</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>PROPAN-2-OL</th>
<th>1-5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 67-63-0</td>
<td></td>
</tr>
<tr>
<td>EC number: 200-661-7</td>
<td></td>
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<tr>
<td>REACH registration number: 01-2119457558-25-xxxx</td>
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<table>
<thead>
<tr>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 2 - H225</td>
</tr>
<tr>
<td>Eye Irrit. 2 - H319</td>
</tr>
<tr>
<td>STOT SE 3 - H336</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Inhalation</th>
<th>If inhaled: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.</td>
</tr>
</tbody>
</table>
GLASS GUARD

Eye contact  
Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

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

Inhalation  
May cause drowsiness or dizziness.

Ingestion  
May cause discomfort if swallowed.

Skin contact  
Product has a defatting effect on skin.

Eye contact  
Causes serious eye irritation.

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

Notes for the doctor  
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media  
Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products  
Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO2). Carbon monoxide (CO).

5.3. Advice for firefighters

Protective actions during firefighting  
No specific firefighting precautions known.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions  
Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Do not touch or walk into spilled material. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapours. Provide adequate ventilation. Take care as floors and other surfaces may become slippery. Avoid contact with contaminated tools and objects. Wash thoroughly after dealing with a spillage.

6.2. Environmental precautions

Environmental precautions  
Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up  
Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Eliminate all sources of ignition. Contain and absorb spillage with sand, earth or other non-combustible material. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage.

6.4. Reference to other sections

Reference to other sections  
Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
GLASS GUARD

Usage precautions

Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Provide adequate ventilation. Avoid contact with skin, eyes and clothing. Do not breathe vapours. Do not eat, drink or smoke when using this product. Wash skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions
Store at temperatures between 4°C and 40°C. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Storage class
Flammable liquid storage.

7.3. Specific end use(s)

Specific end use(s)
The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Ethyl alcohol
Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m³

METHANOL
Long-term exposure limit (8-hour TWA): WEL 200 ppm(Sk) 266 mg/m³(Sk)
Short-term exposure limit (15-minute): WEL 250 ppm(Sk) 333 mg/m³(Sk)

PROPAN-2-OL
Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m³
Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m³
WEL = Workplace Exposure Limit

ISOPENTYL ACETATE (CAS: 123-92-2)

DNEL
Workers - Inhalation; Long term systemic effects: 20.8 mg/m³
Workers - Dermal; Long term systemic effects: 2.95 mg/kg/day
General population - Inhalation; Long term systemic effects: 5.1 mg/m³
General population - Dermal; Long term systemic effects: 1.47 mg/kg/day
General population - Oral; Long term systemic effects: 1.47 mg/kg/day

PNEC
- Fresh water; 0.022 mg/l
- Marine water; 0.0022 mg/l
- Intermittent release; 0.22 mg/l
- STP; 30 mg/l
- Sediment (Freshwater); 17.87 mg/kg/day
- Sediment (Marine water); 1.787 mg/kg/day
- Soil; 4.15 mg/kg/day

ETHANOL (CAS: 64-17-5)

Ingredient comments
WEL = Workplace Exposure Limits
GLASS GUARD

DNEL
Industry - Inhalation; Short term: 1900 mg/m³
Industry - Dermal; Long term: 343 mg/kg/day
Industry - Inhalation; Long term: 950 mg/m³
Consumer - Inhalation; Short term: 950 mg/m³
Consumer - Dermal; Long term: 206 mg/kg/day
Consumer - Inhalation; Long term: 114 mg/m³
Consumer - Oral; Long term: 87 mg/kg/day

PNEC
- Fresh water: 0.96 mg/l
- Marine water: 0.79 mg/l
- Soil: 0.62 mg/kg
- STP: 580 mg/l

METHANOL (CAS: 67-56-1)

DNEL
Industry - Dermal: 40 mg/kg/day
Industry - Inhalation: 260 mg/m³
Consumer - Dermal: 8 mg/kg/day
Consumer - Inhalation: 50 mg/m³

PNEC
- Sediment: 570.4 mg/kg
- Soil: 23.5 mg/kg
- STP: 100 mg/l
- Fresh water: 154 mg/l
- Marine water: 15.4 mg/l

PROPAN-2-OL (CAS: 67-63-0)

DNEL
Industry - Dermal; Long term systemic effects: 888 mg/kg/day
Industry - Inhalation; Long term systemic effects: 500 mg/m³
Consumer - Dermal; Long term systemic effects: 319 mg/kg/day
Consumer - Oral; Long term systemic effects: 26 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 89 mg/m³

PNEC
- Fresh water: 140.9 mg/l
- Marine water: 140.9 mg/l
- Intermittent release: 140.9 mg/l
- Sediment (Freshwater): 552 mg/kg
- Sediment (Marine water): 552 mg/kg
- STP: 2251 mg/l
- Soil: 28 mg/kg

8.2. Exposure controls

Protective equipment

Eye/face protection
Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.
GLASS GUARD

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. For exposure up to 4 hours, wear gloves made of the following material: Rubber (natural, latex). Nitrile rubber. Neoprene. Polyvinyl chloride (PVC). To protect hands from chemicals, gloves should comply with European Standard EN374. The selected gloves should have a breakthrough time of at least 4 hours. The breakthrough time for any glove material may be different for different glove manufacturers. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.

Hygiene measures
Wash hands thoroughly after handling.

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>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>Ester</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>5°C SCC (Setaflash closed cup)</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.840 @ 25°C</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Insoluble in water</td>
</tr>
</tbody>
</table>

9.2. Other information
Other information Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability
Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions Not determined.

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

10.5. Incompatible materials
Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products
Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity - oral
GLASS GUARD

ATE oral (mg/kg)  12,776.83134583

Acute toxicity - dermal
ATE dermal (mg/kg)  12,776.83134583

Acute toxicity - inhalation
ATE inhalation (vapours mg/l)  425.89437819

Inhalation  Vapours may cause drowsiness and dizziness.
Ingestion  Gastrointestinal symptoms, including upset stomach.
Skin contact  Product has a defatting effect on skin.
Eye contact  Causes serious eye irritation.

Toxicological information on ingredients.

ISOPENTYL ACETATE

Acute toxicity - oral
Acute toxicity oral (LD₅₀ mg/kg)  7,422.0
Species  Rat
ATE oral (mg/kg)  7,422.0

Acute toxicity - dermal
Acute toxicity dermal (LD₅₀ mg/kg)  5,000.0
Species  Rat
ATE dermal (mg/kg)  5,000.0

Skin contact  Dryness and/or cracking.

Ethyl alcohol

Acute toxicity - oral
Acute toxicity oral (LD₅₀ mg/kg)  2,001.0
Species  Rat
ATE oral (mg/kg)  2,001.0

Acute toxicity - dermal
Acute toxicity dermal (LD₅₀ mg/kg)  2,001.0
Species  Rabbit
ATE dermal (mg/kg)  2,001.0

Acute toxicity - inhalation
Acute toxicity inhalation (LC₅₀ vapours mg/l)  21.0
GLASS GUARD

Species Mouse

ATE inhalation (vapours mg/l) 21.0

Serious eye damage/irritation

Serious eye damage/irritation Slightly irritating.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 1730 mg/kg, Oral,

Target organs Gastro-intestinal tract Liver

Inhalation Vapours in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.

Ingestion Ingestion of large amounts may cause unconsciousness. May cause nausea, headache, dizziness and intoxication.

Skin contact Repeated exposure may cause skin dryness or cracking.

Eye contact Irritating to eyes.

Medical symptoms EYES AND MUCOUS MEMBRANES. Irritation of eyes and mucous membranes. RESPIRATORY SYSTEM. Upper respiratory irritation. SKIN. Skin irritation. DIGESTIVE SYSTEM. Gastrointestinal symptoms, including upset stomach.

METHANOL

Acute toxicity - oral

ATE oral (mg/kg) 300.0

Acute toxicity - dermal

ATE dermal (mg/kg) 300.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 10.0

Species Rat

ATE inhalation (vapours mg/l) 10.0

PROPAN-2-OL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 4,700.0

Species Rat

ATE oral (mg/kg) 4,700.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 16.4
GLASS GUARD

Species
Rabbit

SECTION 12: Ecological Information

Ecotoxicity
The product is not expected to be hazardous to the environment.

Ecological information on ingredients.

Ethyl alcohol

Ecotoxicity
The product is not expected to be hazardous to the environment.

PROPA-N-2-OL

Ecotoxicity
The product is not expected to be toxic to aquatic organisms.

12.1. Toxicity

Acute toxicity - fish
Not determined.

Ecological information on ingredients.

Ethyl alcohol

Toxicity
Not considered toxic to fish.

Acute toxicity - fish
Not determined.
LC₅₀, 48 hours, 48 hours: > 100 mg/l, Leuciscus idus (Golden orfe)
LC₅₀, 96 hours: 11.000 mg/l, Fish

Acute toxicity - aquatic invertebrates
EC₅₀, 48 hours: 12.34 mg/l, Daphnia magna

Acute toxicity - aquatic plants
EC₅₀, hours: mg/l, Selenastrum capricornutum

METHANOL

Acute toxicity - fish
LC₅₀, 96 hours: 10800 mg/l, Fish

Acute toxicity - aquatic invertebrates
EC₅₀, 48 hours, 48 hours: 24500 mg/l,

Acute toxicity - aquatic plants
IC₅₀, 72 hours: 8000 mg/l, Algae

PROPA-N-2-OL

Toxicity
Not considered toxic to fish.

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

Acute toxicity - aquatic invertebrates
EC₅₀, 72 hours: > 100 mg/l, Scenedesmus subspicatus

Persistance and degradability
The product is expected to be biodegradable.
GLASS GUARD

Ecological information on ingredients.

**Ethyl alcohol**

**Persistence and degradability**
The product is readily biodegradable.

**Biodegradation**
- Half-life: $1 < 10$

**PROPAN-2-OL**

**Persistence and degradability**
The product is readily biodegradable.

12.3. Bioaccumulative potential

**Bioaccumulative potential**
The product is not bioaccumulating.

12.4. Mobility in soil

**Mobility**
The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment**
This product does not contain any substances classified as PBT or vPvB.

**PROPAN-2-OL**

**Results of PBT and vPvB assessment**
This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

**Other adverse effects**
Not determined.

Ecological information on ingredients.

**Ethyl alcohol**

**Partition coefficient**
- $-0.031$

**PROPAN-2-OL**

**Mobility**
The product is soluble in water.
SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1993
UN No. (IMDG) 1993
UN No. (ICAO) 1993

14.2. UN proper shipping name

Proper shipping name (ADR/RID) FLAMMABLE LIQUID, N.O.S. (ethanol)
Proper shipping name (IMDG) FLAMMABLE LIQUID, N.O.S. (ethanol)
Proper shipping name (ICAO) FLAMMABLE LIQUID, N.O.S. (ethanol)

14.3. Transport hazard class(es)

ADR/RID class 3
IMDG class 3
ICAO class/division 3

14.4. Packing group

ADR/RID packing group II
IMDG packing group II
ICAO packing group II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant No.

14.6. Special precautions for user

Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
GLASS GUARD

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

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

National regulations
Control of Substances Hazardous to Health Regulations 2002 (as amended).

EU legislation

Guidance
Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

SECTION 16: Other information

Revision comments
NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date
24/08/2015

Revision
2.0

Supersedes date
20/11/2013

SDS number
14565

Risk phrases in full
R10 Flammable.
R11 Highly flammable.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R36 Irritating to eyes.
R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

Hazard statements in full
H225 Highly flammable liquid and vapour.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H336 May cause drowsiness or dizziness.
H370 Causes damage to organs (Central nervous system).

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.