



SAFETY DATA SHEET

Smart Glass

According to Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, December 2011

SECTION 1: Identification: Product identifier and chemical identity

Product identifier

Product name Smart Glass

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

Application Window glass cleaner.

Uses advised against For professional use only. This product is not recommended for any industrial, professional or consumer use other than the Identified uses above.

Details of the supplier of the safety data sheet

Supplier Autosmart Australia
 11 Darrambal Close
 Rathmines
 NSW 2283
 Australia
www.autosmartaustralia.com.au
 Tel: 02 49 75 14 88 (Mon to Fri, 08:00 - 16:00 AEST) (General Information. Transport Information. Mild Medical Information)
autosmart@autosmartaustralia.com.au

Contact Person Mr. Russell Butler

Emergency telephone number

Emergency telephone Emergency No: +44 7808 971321 (24hrs) (Autosmart International, UK)
 General Information. Transport Information. Mild medical Information:-
 Tel: 02 49 75 14 88 (Mon to Fri, 08:00 - 16:00 AEST)

National emergency telephone number Poison Information Hotline: 13 11 26

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard statements NC Not Classified

Precautionary statements P280 Wear protective gloves.
 P261 Avoid breathing spray.
 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.

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Other hazards

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

SECTION 3: Composition and information on ingredients

Mixtures

2-BUTOXYETHANOL	5<10%
CAS number: 111-76-2	
Substance with a Community workplace exposure limit.	

Classification

Acute Tox. 4 - H302
 Acute Tox. 4 - H312
 Acute Tox. 4 - H332
 Skin Irrit. 2 - H315
 Eye Irrit. 2A - H319

ETHANOL	3<5%
CAS number: 64-17-5	

Classification

Flam. Liq. 2 - H225

PROPAN-2-OL	0.5<0.7%
CAS number: 67-63-0	
Substance with a Community workplace exposure limit.	

Classification

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

BUTANONE	0.5<0.7%
CAS number: 78-93-3	

Classification

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

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

Description of first aid measures

General information Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.

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Ingestion	Rinse mouth thoroughly with water. Remove any dentures. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
Skin Contact	Remove affected person from source of contamination. Rinse immediately with plenty of water.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Prolonged inhalation of high concentrations may damage respiratory system.
Ingestion	Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
Skin contact	Prolonged contact may cause dryness of the skin.
Eye contact	May cause temporary eye irritation.

Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
Specific treatments	No special treatment required.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media	The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to Australia/New Zealand Standards AS/NZS 4967 (for clothing) AS/NZS 1801 (for helmets), AS/NZS 4821 (for protective boots), AS/NZS 1801 (for protective gloves) will provide a basic level of protection for chemical incidents.

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SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage.

Environmental precautions

Environmental precautions Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Reuse or recycle products wherever possible. Approach the spillage from upwind. Small Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labelled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. The contaminated absorbent may pose the same hazard as the spilled material. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Reference to other sections

Reference to other sections For personal protection, see Section 8.

SECTION 7: Handling and storage, including how the chemical may be safely used

Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in accordance with local regulations.

Storage class Chemical storage.

Specific end use(s)

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

SECTION 8: Exposure controls and personal protection

Control parameters

Occupational exposure limits

2-BUTOXYETHANOL

Smart Glass

Long-term exposure limit (8-hour TWA): 20 ppm 96.9 mg/m³

Short-term exposure limit (15-minute): 50 ppm 242 mg/m³

Sk

ETHANOL

Long-term exposure limit (8-hour TWA): 1000 ppm 1880 mg/m³

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): 400 ppm 983 mg/m³

Short-term exposure limit (15-minute): 500 ppm 1230 mg/m³

BUTANONE

Long-term exposure limit (8-hour TWA): NOHSC 150 ppm 445 mg/m³

Short-term exposure limit (15-minute): NOHSC 300 ppm 890 mg/m³

NOHSC = The National Occupational Health and Safety Commission.

Sk = Absorption through the skin may be a significant source of exposure.

Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Good general ventilation should be adequate to control worker exposure to airborne contaminants.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with Australia/New Zealand Standard AS/NZS 1337. The following protection should be worn: Chemical splash goggles.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with Australia/New Zealand Standard AS/NZS 2161. 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. Frequent changes are recommended.

Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures

Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Provide adequate ventilation. Large Spillages: If ventilation is inadequate, suitable respiratory protection must be worn.

Environmental exposure controls

Not regarded as dangerous for the environment.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Smart Glass

Appearance	Liquid.
Colour	Light blue.
Odour	Characteristic.
pH	Not applicable.
Melting point	<0°C
Initial boiling point and range	~100°C
Flash point	No information available.
Other flammability	This product does not sustain combustion, according to the sustained combustibility test L.2, Part III, section 32 of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria.
Viscosity	~1 cSt @ 20°C
Comments	Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.
Volatile organic compound	This product contains a maximum VOC content of 12 %.

SECTION 10: Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	No potentially hazardous reactions known.
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.
Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

SECTION 11: Toxicological information

Information on toxicological effects

Toxicological effects	Not regarded as a health hazard under current legislation.
<u>Acute toxicity - oral</u>	
Notes (oral LD₅₀)	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	21,079.94
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.
ATE dermal (mg/kg)	17,836.87
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	Based on available data the classification criteria are not met.

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ATE inhalation (vapours mg/l) 178.37

Skin corrosion/irritation

Animal data Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

General information No specific health hazards known. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation Prolonged inhalation of high concentrations may damage respiratory system.

Ingestion Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.

Skin Contact Prolonged contact may cause dryness of the skin.

Eye contact May cause temporary eye irritation.

Route of entry Ingestion Inhalation Skin and/or eye contact

Target Organs No specific target organs known.

Toxicological information on ingredients.

2-BUTOXYETHANOL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,300.0

Species Rat

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ATE oral (mg/kg)	1,300.0
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD₅₀ mg/kg)	2,270.0
Species	Rat
ATE dermal (mg/kg)	1,100.0
<u>Acute toxicity - inhalation</u>	
ATE inhalation (vapours mg/l)	11.0
<u>Skin sensitisation</u>	
Skin sensitisation	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Gene mutation:: Negative. This substance has no evidence of mutagenic properties.
<u>Carcinogenicity</u>	
IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Fertility: - NOAEL 720 mg/kg, , Mouse
Reproductive toxicity - development	Developmental toxicity: - NOAEL: 100 mg/kg, , Rat

PROPAN-2-OL

Other health effects	There is no evidence that the product can cause cancer.
<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	5,840.0
Species	Rat
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD₅₀ mg/kg)	16.4
Species	Rabbit
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Not sensitising.
<u>Skin sensitisation</u>	
Skin sensitisation	Not sensitising.
<u>Carcinogenicity</u>	
IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.

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Inhalation	Drowsiness, dizziness, disorientation, vertigo.
Ingestion	No specific health hazards known.
Skin Contact	No specific health hazards known.
Eye contact	Irritating to eyes.

SECTION 12: Ecological Information

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Ecological information on ingredients.

2-BUTOXYETHANOL

Ecotoxicity Not regarded as dangerous for the environment.

PROPAN-2-OL

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

Toxicity Based on available data the classification criteria are not met.

Ecological information on ingredients.

2-BUTOXYETHANOL

Acute toxicity - fish LC50, 96 hours: > 100 mg/l, Lepomis macrochirus (Bluegill)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 1550 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, >: > 100 mg/l,

Acute toxicity - microorganisms EC₅₀, >: > 1000 mg/l,

Chronic toxicity - fish early life stage NOEC, 21 days: > 100 mg/l,

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 100 mg/l, Daphnia magna

PROPAN-2-OL

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

Acute toxicity - aquatic invertebrates EC₅₀, >: > 1000 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: > 1000 mg/l, Scenedesmus subspicatus

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

Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Smart Glass

Ecological information on ingredients.

2-BUTOXYETHANOL

Persistence and degradability	The product is biodegradable.
Biodegradation	Water - Degradation (%) 90.4: 28 days

PROPAN-2-OL

Persistence and degradability	The product is expected to be biodegradable.
Biodegradation	Degradation (%) - 95: 21 days
Biological oxygen demand	~ 1171 g O ₂ /g substance
Chemical oxygen demand	~ 2294 g O ₂ /g substance

Bioaccumulative potential

Bioaccumulative Potential No data available on bioaccumulation.

Ecological information on ingredients.

2-BUTOXYETHANOL

Bioaccumulative Potential	The product is not bioaccumulating.
Partition coefficient	: 0.81

PROPAN-2-OL

Bioaccumulative Potential	The product is not bioaccumulating.
Partition coefficient	log Pow: 0.05

Mobility in soil

Mobility The product is water-soluble and may spread in water systems. The product is non-volatile.

Ecological information on ingredients.

2-BUTOXYETHANOL

Mobility	The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.
Adsorption/desorption coefficient	Water - Koc: ~ 67 @ °C
Henry's law constant	0.000016 atm m ³ /mol @ °C
Surface tension	65 mN/m @ °C

PROPAN-2-OL

Mobility	The product is soluble in water.
Adsorption/desorption coefficient	Water - Koc: ~ 1.1 @ °C

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Henry's law constant 0.00000338 atm m³/mol @ 25°C

Results of PBT and vPvB assessment

Ecological information on ingredients.

2-BUTOXYETHANOL

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

PROPAN-2-OL

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

Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

Waste treatment methods

General information

The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

Disposal methods

Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.

SECTION 14: Transport information

General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

UN number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Transport labels

Packing group

Not applicable.

Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

Special precautions for user

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Not applicable.

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

SECTION 15: Regulatory information

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

Schedule (SUSMP) No Poison Schedule number allocated

Inventories

Australia - AICS

All the ingredients are listed or exempt.

SECTION 16: Any other relevant information

Training advice	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Issued by	Prepared by Autosmart International Ltd, Lynn Lane, Shenstone, Lichfield, Staffordshire, WS14 0DH, Great Britain. www.autosmartinternational.com rbutler@autosmart.co.uk Tel +44 (0)1543 481616
Revision date	16/06/2016
Revision	1
SDS No.	21169
SDS status	Approved.
Hazard statements in full	H225 Highly flammable liquid and vapour. H302 Harmful if swallowed. H312 Harmful in contact with skin. H315 Causes skin irritation. H319 Causes serious eye irritation. H332 Harmful if inhaled. H336 May cause drowsiness or dizziness.

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.