Glass Clean 1l

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

1.1. Product identifier
Trade name/designation:

Glass Clean 1l

Article No.:
T100111

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture:
Glass/window/mirror cleaning products (excludes windscreens)

Relevant identified uses:

Product Categories [PC]
PC 35: Washing and cleaning products
Environmental release categories [ERC]
ERC 2: Formulation into mixture (mixtures)

1.3. Details of the supplier of the safety data sheet
Supplier:

KANDO Service GmbH
Hartleitnerstraße 3
4653 Eberstalzell
Austria
Telephone: +43 (0) 7241 213 79
E-mail: msds@kando.eu

1.4. Emergency telephone number
Vergiftungsinformationszentrale (VIZ), Stubenring 6, 1010 Wien, 24h: 01 406 43 43, Montag - Freitag: 8 bis 16 Uhr, Tel.: 01 406 68 98 (keine medizinische Auskunft) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [CLP]
The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

*
2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
Hazard components for labelling:
ethanol
Hazard statements: none
Supplemental hazard information: none

Precautionary statements Response	
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.

Precautionary statements Storage	
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

2.3. Other hazards
Adverse physicochemical effects:
Materials to avoid: Acids, Light metal, Aluminium, zinc, Organic peroxides.

Other adverse effects:
The mixture shall not contain substances whose properties interfere with endocrine disruption, in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients

* **3.2. Mixtures**

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 64-17-5 EC No.: 200-578-6 Index No.: 603-002-00-5 REACH No.: 01-2119457610-43-XXXX	**ethanol** Flam. Liq. 2 (H225) Danger **Acute Toxicity Estimate** ATE (oral) 10,470 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, vapour) > 20 mg/L	< 1.5 Vol-%
CAS No.: 67-63-0 EC No.: 200-661-7 Index No.: 603-117-00-0 REACH No.: 01-2119457558-25	**propan-2-ol** Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336) Danger **Acute Toxicity Estimate** ATE (oral) 5.84 mg/kg ATE (dermal) 13,900 mg/kg ATE (inhalation, dust/mist) > 25 mg/L	< 0.5 Vol-%

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:
Pay attention to your own safety. If health problems occur or in case of doubt, inform the doctor and give him/her information from this safety data sheet.

Following inhalation:
Immediately stop exposure, remove affected person to fresh air.

In case of skin contact:
Take off contaminated clothing.

After eye contact:
Immediately rinse the eyes with a stream of running water, open the eyelids (with force if necessary); if the affected person has contact lenses, remove them immediately. Rinse for at least 10 minutes. Seek medical treatment, preferably from a specialist.

Following ingestion:
Rinse mouth. Consult a doctor if symptoms persist.

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

IF INHALED: Not expected.
IF ON SKIN: Not expected.
IF IN EYES: Not expected.
IF SWALLOWED: Not expected.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media:
None known.

5.2. Special hazards arising from the substance or mixture
In the event of a fire, carbon oxide and carbon dioxide and other toxic gases may be produced. Inhalation of hazardous decomposing (pyrolising) products may cause serious damage to health.

5.3. Advice for firefighters
Self-contained breathing apparatus (SCBA) with a chemical protective suit if (close) personal contact.
Wear self-contained breathing apparatus and full protective suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Personal precautions:
Wear personal protection equipment (refer to section 8).

6.1.2. For emergency responders
No data available

6.2. Environmental precautions
Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up
For cleaning up:
After removing the product, wash contaminated area with plenty of water.

6.4. Reference to other sections
See section 7 for further information on safe handling.
For further information on personal protective equipment: see section 8.
For further information on disposal: see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures
Advices on safe handling:
Prevent the formation of gases and vapours in concentrations exceeding the occupational exposure limits for hazardous substances. Do not inhale the dust. Avoid contact with skin and eyes. Wash hands and affected body parts thoroughly after use. Use personal protective equipment according to section 8. Observe the applicable legislation on health and safety.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels:
Keep container tightly closed in a cool, well-ventilated place. Do not store near sources of ignition.
Hints on storage assembly:
Keep away from food, drink and animal feed. Do not eat, drink or smoke when using this product.
Storage class (TRGS 510, Germany): 12 – non-combustible liquids that cannot be assigned to any of the above storage classes
Further information on storage conditions:
minimum storage temperature: 5°C
maximum storage temperature: 30°C

7.3. Specific end use(s)
Recommendation:
Window and Glass Surface Cleaner

SECTION 8: Exposure controls/personal protection

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8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
MAK (AT)	**ethanol** CAS No.: 64-17-5 EC No.: 200-578-6	① 1,000 ppm (1,900 mg/m³)
MAK (AT)	**ethanol** CAS No.: 64-17-5 EC No.: 200-578-6	② 2,000 ppm (3,800 mg/m³) ⑤ (max. 3x60 min./Schicht, Momentanwert)
MAK (AT)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	② 800 ppm (2,000 mg/m³) ⑤ (max. 4x15 min./Schicht)
MAK (AT)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (500 mg/m³)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	500 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	89 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	888 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	319 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	26 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects

Substance name	PNEC Value	① PNEC type
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	140.9 mg/L	① PNEC aquatic, freshwater
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	1,409 mg/L	① PNEC aquatic, marine water
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	2,251 mg/L	① PNEC sewage treatment plant
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	552 mg/kg	① PNEC sediment, freshwater
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	552 mg/kg	① PNEC sediment, marine water

Substance name	PNEC Value	① PNEC type
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	140.9 mg/L	① PNEC aquatic, intermittent release

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Ensure good ventilation/extraction at the workplace. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

8.2.2. Personal protection equipment

Eye/face protection:
Not necessary.

Skin protection:
Hand protection:
Wear suitable protective gloves in case of prolonged or repeated skin contact.

Respiratory protection:
Half mask with filter against organic vapours, possibly respirator if the occupational exposure limits of the substances are exceeded or in a poorly ventilated environment.

Thermal hazards:
No further relevant information available.

Other protection measures:
Care must be taken to avoid direct contact with the product, skin and eye contact, accidental ingestion and spillage. It is forbidden to eat or smoke during work. Hand washing facilities during breaks and hot water baths after work should be provided. Afterwards, hands should be coated with skin protection cream.

8.2.3. Environmental exposure controls

Section 6: Accidental Release Measures

SECTION 9: Physical and chemical properties

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9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid
Colour: colourless
Odour: Lemon
flammability: No data available

Safety relevant basis data

Parameter	Value	① Method ② Remark
pH	7	
Melting point	*No data available*	
Freezing point	*No data available*	
Initial boiling point and boiling range	*No data available*	
Flash point	*No data available*	
Evaporation rate	*No data available*	
Auto-ignition temperature	*No data available*	
Upper/lower flammability or explosive limits	*No data available*	
Vapour pressure	*No data available*	
Vapour density	*No data available*	
Density	1 g/cm³	
Bulk density	*not applicable*	

Parameter	Value	① Method ② Remark
Water solubility	*No data available*	
Dynamic viscosity	*No data available*	
Kinematic viscosity	*No data available*	

9.2. Other information
No further relevant information available.

SECTION 10: Stability and reactivity

10.1. Reactivity
No further relevant information available.

10.2. Chemical stability
The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions
None known. Contact with acids produces toxic gases that are corrosive to metals. Reacts with strong acids and oxidizing agents, reacting with light metals and metals. Heavy metals and their salts catalyze decomposition. Hazardous decomposition products: Chlorine.

10.4. Conditions to avoid
The product is stable under storage at normal ambient temperatures. Protect from flames, sparks, overheating and frost.

10.5. Incompatible materials
Strong acid, Alkalis, Oxidizing agent

10.6. Hazardous decomposition products
Do not occur during normal use. At high temperatures and in the event of a fire, dangerous products such as carbon oxide and carbon dioxide are formed.

SECTION 11: Toxicological information

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11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

ethanol CAS No.: 64-17-5 EC No.: 200-578-6
LD_{50} oral: >2,000 mg/kg (Rat) IUCLID
LD_{50} dermal: >2,000 mg/kg (Rat)
LC_{50} Acute inhalation toxicity (vapour): >20 mg/L (Rat) RTECS
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7
LD_{50} oral: 5.84 mg/kg (Rat)
LD_{50} dermal: 13,900 mg/kg (Rabbit)
LC_{50} Acute inhalation toxicity (dust/mist): >25 mg/L 6 h (Rat)

Acute oral toxicity:
Based on available data, the classification criteria are not met.

Acute dermal toxicity:
Based on available data, the classification criteria are not met.

Acute inhalation toxicity:
Based on available data, the classification criteria are not met.

Skin corrosion/irritation:
Based on available data, the classification criteria are not met.

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

Respiratory or skin sensitisation:
Based on available data, the classification criteria are not met.

Germ cell mutagenicity:
Based on available data, the classification criteria are not met.

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

Reproductive toxicity:
Based on available data, the classification criteria are not met.

STOT-single exposure:
Based on available data, the classification criteria are not met.

STOT-repeated exposure:
Based on available data, the classification criteria are not met.

Aspiration hazard:
Inhalation of solvent vapours above levels exceeding the exposure limit values for the working environment may result in acute inhalation poisoning, depending on the level of concentration and the exposure time. Based on available information, the criteria for classification are not met.

11.2. Information on other hazards

Endocrine disrupting properties:
The mixture shall not contain substances whose properties interfere with endocrine disruption, in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 12: Ecological information

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12.1. Toxicity

ethanol CAS No.: 64-17-5 EC No.: 200-578-6
LC_{50}: >1,000 mg/L 4 d (fish)
LC_{50}: =11,200 mg/L 1 d
EC_{50}: >1,000 mg/L 2 d (crustaceans, Daphnia magna)
EC_{50}: =275 mg/L 3 d
NOEC: =9.6 mg/L (crustaceans, Ceriodaphnia dubia)
ErC_{50}: >100 mg/L
LC_{50}: 8,140 mg/L 2 d (fish, Leuciscus idus (golden orfe))
EC_{50}: 6,500 mg/L (Algae/water plant, Pseudomonas putida)
NOEC: 250 mg/L (fish, Danio rerio)
ErC_{50}: 275 mg/L 3 d (Algae/water plant, Chlorella vulgaris)
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7
LC_{50}: 9,640 mg/L 4 d (fish, Pimephales promelas)
LC_{50}: 9,714 mg/L (crustaceans, Daphnia magna)
NOEC: 250 mg/L (fish, Oncorhynchus mykiss)

Assessment/classification:
No further relevant information available.

12.2. Persistence and degradability

ethanol CAS No.: 64-17-5 EC No.: 200-578-6
Biodegradation: Yes, rapidly
Remark: Readily biodegradable (according to OECD criteria).

Abiotic degradation:
No further relevant information available.

Biodegradation:
No further relevant information available.

12.3. Bioaccumulative potential

ethanol CAS No.: 64-17-5 EC No.: 200-578-6
Log K_{OW}: -0.31

Accumulation / Evaluation:
No further relevant information available.

12.4. Mobility in soil
No further relevant information available.

12.5. Results of PBT and vPvB assessment

ethanol	CAS No.: 64-17-5 EC No.: 200-578-6
Results of PBT and vPvB assessment: —	
propan-2-ol	CAS No.: 67-63-0 EC No.: 200-661-7
Results of PBT and vPvB assessment: —	

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties
The mixture shall not contain substances whose properties interfere with endocrine disruption, in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects
No further relevant information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Risk of contamination of the environment, proceed in accordance with the Waste Act as well as the implementing regulations on waste disposal. Proceed in accordance with the applicable regulations on waste disposal. Place an unused product and soiled packaging in containers marked for waste collection and hand them over for disposal to a person (specialised company) authorised to carry out such activities. Do not pour an unused product into the sewage system. Do not dispose of together with municipal waste. Empty packaging may be used energetically in a waste incineration plant or deposited in a landfill of the appropriate incorporation. Completely cleaned packaging can be handed over for recycling.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV
Waste code product

15 01 10 *	packaging containing residues of or contaminated by dangerous substances

**: Evidence for disposal must be provided.*

13.2. Additional information
Ordinance of the Federal Minister of Agriculture, Forestry, Environment and Water Management on the Avoidance and Recovery of Packaging Waste and Certain Residual Goods (Packaging Ordinance 2014), as amended. Hazardous waste according to the Waste Catalogue Ordinance. Ordinance of the Federal Minister of Agriculture, Forestry, Environment and Water Management on a List of Wastes (List of Wastes Ordinance), as amended. Decision 2000/532/EC on the provision of a list of wastes with subsequent amendments. Federal Act on Sustainable Waste Management (Waste Management Act 2002 - AWG 2002), as amended.

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
* **14.3. Transport hazard class(es)**			
not relevant	not relevant	not relevant	not relevant

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.4. Packing group			
not relevant	not relevant	not relevant	not relevant
14.5. Environmental hazards			
not relevant	not relevant	not relevant	not relevant
14.6. Special precautions for user			
not relevant	not relevant	not relevant	not relevant

14.7. Maritime transport in bulk according to IMO instruments
not applicable

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Authorisations:

Bundesgesetz über die Gesundheit Österreich GmbH (GÖGG) StF: BGBl. I No. 132/2006. Regulation of the European Parliament and of the Council (EC) No. 1907/2006 of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93, Commission Regulation (EC) No 1488/94, Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation of the European Parliament and of the Council (EC) No 1272/2008, as amended. Federal Act on the Protection of Human Health and the Environment against Chemicals (Chemicals Act 1996 - ChemG 1996), as amended. Federal Act on Safety and Health at Work (Employee Protection Act - ASchG), as amended. Federal Act on Protection against Immissions caused by Air Pollutants (Immission Protection Act - Air, IG-L), as amended. The product contains reportable explosives precursors: reporting of suspicious transactions, loss and theft in accordance with Regulation (EU) 2019/1148, Article 9. Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.1.2. National regulations
No data available

15.2. Chemical Safety Assessment
A chemical safety assessment has not been carried out.

SECTION 16: Other information

* 16.1. Indication of changes

2.2.	Label elements
3.2.	Mixtures
8.1.	Control parameters
9.1.	Information on basic physical and chemical properties
11.1.	Information on hazard classes as defined in Regulation (EC) No 1272/2008
12.1.	Toxicity
14.3.	Transport hazard class(es)
16.1.	Indication of changes
16.2.	Abbreviations and acronyms

* 16.2. Abbreviations and acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	Chemical Abstracts Service

CLP	Classification, Labelling and Packaging
DNEL	derived no-effect level
EC_{50}	Effective Concentration 50%
ERC	Environmental Release Category
ES	Exposure scenario
EWC	European Waste Catalogue
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
IUCLID	International Uniform Chemical Information Database
KG	body weight
LC_{50}	Lethal (fatal) Concentration 50%
LD_{50}	Lethal (fatal) Dose 50%
MAK	Maximum concentration in the workplace air (CH)
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Cooperation and Development
OSHA	Occupational Safety & Health Administration
PBT	persistent and bioaccumulative and toxic
PC	Product category
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Dangerous goods regulations for transport by rail
RTECS	Registry of Toxic Effects of Chemical Substances
SCL	Specific concentration limit
TRGS	Technische Regeln für Gefahrstoffe
UN	United Nations

16.3. Key literature references and sources for data
No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

Hazard statements	
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

16.6. Training advice
No data available

16.7. Additional information
To the best of our knowledge, the information contained herein is accurate. However, neither the above-mentioned supplier nor its subsidiaries assume any liability with regard to the correctness or completeness of the information provided. A final determination of the suitability of individual materials is the sole responsibility of the user. All materials may involve unknown risks and should be used with caution. While certain risks are described herein, we cannot guarantee that these are the only possible risks.

* Data changed compared with the previous version.