

SAFETY DATA SHEET

Glass Cleaner

UNICARE (CHEMICALS) LTD

1 Identification

Product Identifier:

Glass Cleaner

Other means of identification:

Not applicable.

Recommended use of the chemical and restriction on use:

Glass cleaner

Supplier's details:

Unicare (Chemicals) Ltd,
Aradhippou Industrial Area 7101, Larnaca, Cyprus

P.O Box 54088

Tel.: +357 24531766, +357 24533765

Fax: +357 24532111

Emergency phone number

1401

2 Hazard(s) identification

Classification of the substance or mixture

According to regulation (EC) No 1272/2008 [CLP]

Flammable Liquid: Hazard Category 4

GHS Label Element

None

Signal Word:

Warning

Hazard Statements:

H227: Combustible liquid

Precautionary Statement

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P370+P378: In case of fire: Use Pulverized water, foam, dry chemical & carbon dioxide for extinction.

P403: Store in a well-ventilated place.

Other hazards which do not result in classification

Results of PBT and vPvB assessment

- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients

Mixture

| Description | - CAS Number - EINECS Number - Reach registration number | Concentration (% w/w) | Note / Classification |
|-------------------|--|-----------------------|--|
| 2-Butoxyethanol | - 111-76-2 - 203-905-0 - N/A | 7.5 – 9.5 | Acute Tox. (oral) 4: H302; Acute Tox. (dermal) 4: H312; Acute Tox. (inhalation) 4: H332; Skin Irrit. 2: H319 |
| Isopropyl alcohol | - 67-63-0 - 200-661-7 - N/A | 7.5 – 8.5 | Flam. Liq. 2: H225; Eye Irrit. 2: H319; STOT SE 3: H336 |

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

4 First-aid measures

Description of first aid measures

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, and seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

On skin contact:

Immediately wash thoroughly with plenty of water, apply sterile dressings, and consult a skin specialist.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms/effects, acute and delayed

Important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Further important symptoms and effects are so far not known.

Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms, no known specific antidote.

5 Fire-fighting measures

Extinguishing media

Flash Point & Method

None

Suitable Extinguishing Media

Pulverized water, foam, dry chemical & carbon dioxide

FIRE HAZARD. Combustible material: INDIRECT FIRE HAZARD. May be ignited by sparks.

Specific hazards arising from the chemical

Carbon monoxide, carbon dioxide, formaldehyde as well as other toxic vapours and gases which are common to thermal degradation (in case of fire) of organic compounds.

Special protective actions for fire-fighters

Wear self-contained breathing apparatus and full protective gear.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures see, Section 8.

Environmental precautions

No special precautions required.

Methods and materials for containment and cleaning up

For containment:

Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute/disperse combustible gas/vapour with water curtain. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills.

Methods for cleaning up: Take up liquid spill into absorbent material, e.g.: dry sand/earth/vermiculite or powdered limestone.

Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Carefully collect the spill/leftovers.

Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

7 Handling and storage

Precautions for safe handling

No special precautions required.

Protection against fire and explosion

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from heat, sparks, flames and high temperatures. Keep well closed and protected from direct sunlight.

Conditions for safe storage, including any incompatibilities

Incompatible reagents: Strong acids. Strong oxidizers.

Incompatible materials: Direct sunlight. Heat sources. Sources of ignition.

Storage stability:

Store in a cool area. Store in a dry area.

Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8 Exposure controls/personal protection

Control parameters

Ingredients with limit values that require monitoring at the workplace:

| Isopropanol (CAS:67-63-0) | | |
|----------------------------------|-------------------------------------|-----------------------|
| ACGIH | ACGIH TWA (ppm) | 200 ppm |
| ACGIH | ACGIH STEL (ppm) | 200 ppm |
| OSHA | OSHA PEL (TWA) (mg/m ³) | 980 mg/m ³ |
| OSHA | OSHA PEL (TWA) (ppm) | 400 ppm |

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

TWA: Time-Weighted Average concentration

STEL: Short Term Exposure Limit

PEL: Permissible Exposure Limit

| 2-Butoxyethanol (CAS:111-76-2) | | |
|---------------------------------------|-------------------------------------|-----------------------------------|
| ACGIH | ACGIH TWA (ppm) | 8-hour TWA: 25 ppm |
| OSHA | OSHA PEL (TWA) (mg/m ³) | 8-hour TWA: 123 mg/m ³ |

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

TWA: Time-Weighted Average concentration

PEL: Permissible Exposure Limit

Components with DNEL

CAS:111-76-2: 2-Butoxyethanol

worker: Long-term exposure-systemic effects, inhalation: 20 mg/m³

worker: Long-term exposure-non-systemic effects, dermal: 75 mg/m²

consumer: Long-term exposure-systemic effects, Inhalation: 49 mg/m³

consumer: Short-term exposure-local effects, Inhalation: 123 mg/m³

consumer: Long-term exposure-systemic effects, dermal: 38 mg/kg

consumer: Long-term exposure-systemic effects, oral: 3.2 mg/kg

Appropriate engineering controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. (Particle filter EN 143 P2 or FFP2)

Hand protection:

Chemical resistant protective gloves. (EN 374)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):

e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other.

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Tightly fitting safety goggles (cage goggles) (e.g. EN 166) and face shield.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Wearing of closed work clothing is required additionally to the stated personal protection equipment. No eating, drinking, smoking or tobacco use at the place of work.

Handle in accordance with good industrial hygiene and safety practice.

9 Physical and chemical properties

Physical and chemical properties

General Information

- **Appearance:**
 - Form: Liquid
 - Colour: Blue
- **Odour:** Characteristic
- **Odour threshold:** Not determined
- **pH-value:** 9.5 - 11.0
- **Specific gravity:** 0.965 – 0.985
- **Change in condition**
 - Melting point/Melting range:** Not determined
 - Boiling point/Boiling range:** 100 °C
- **Flash point:** Not determined
- **Flammability (solid, gaseous):** Combustible
- **Ignition temperature:** Not applicable
- **Decomposition temperature:** Not determined
- **Self-igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
 - Lower: Not determined.
 - Upper: Not determined.
- **Vapour pressure at 20 °C:** Not determined
- **Density at 20 °C:** Not determined
- **Solubility in / Miscibility with water:** Miscible
- **Partition coefficient (n-octanol/water):** Not determined
- **Viscosity:**
 - Dynamic: Not determined
 - Kinematic: Not determined

10 Stability and reactivity

Reactivity

React with oxidants.

Prolonged storage/in large quantities: may form peroxides.

Chemical stability

No specific test data related to reactivity available for this product or its ingredients.

Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.

Conditions to avoid

See SDS Section 7 - Handling and storage.

Incompatible materials

Substances to avoid:

Avoid contact with oxidising agents (e.g. nitric acid, peroxides and chromates). Strong acids

Hazardous decomposition products

In case of fire: carbon dioxide, carbon monoxide

11 Toxicological information

The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

Toxicological (health) effects

Acute 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: No aspiration hazard expected.

Symptoms related to the physical, chemical and toxicological characteristics: Not available data.

Numerical measures of toxicity (such as acute toxicity estimates): Not available data.

Toxicological Data: Isopropyl Alcohol (2-Propanol) (CAS: 67-63-0)

LD₅₀ oral rat:

5045 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 5840 mg/kg body weight; Rat)

LD₅₀ dermal rabbit:

12870 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 16.4; Rabbit)

LC₅₀ inhalation rat (mg/l):

73 mg/l/4h (Rat)

ATE US (oral):

5045.000 mg/kg body weight

ATE US (dermal):

12870.000 mg/kg body weight

ATE US (vapours):

73.000 mg/l/4h

ATE US (dust, mist):

73.000 mg/l/4h

Toxicological Data: 2-Butoxyethanol (CAS: 111-76-2)

Acute toxicity:

Acute Toxicity (Oral LD50): mg/kg (oral rat) 1,746

Acute Toxicity (Inhalation LC50): mg/l (vapours) (4h) 2 - 20

Acute Toxicity (Dermal LD50): mg/kg Guinea Pig > 2000.

Potential acute effects:

Inhalation: In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea. (Not classified as asp. tox.)

Skin contact: Irritating to skin. Prolonged or frequent contact may cause redness, itching, eczema and skin cracking. Defats the skin.

Eye contact: May irritate and cause redness and pain. Causes serious eye irritation.

Ingestion: Ingestion of large amounts may cause unconsciousness. However, ingestion may cause nausea, headache, dizziness and intoxication. Ingestion may cause irritation of the gastrointestinal tract, vomiting and diarrhoea. May cause irritation to the mouth and throat.

13 Ecological information

Toxicity:

Eco toxicity

No relevant information available.

Persistence and Degradability

No relevant information available.

Bioaccumulation

No relevant information available.

Mobility in soil

No relevant information available.

Other Adverse Effects

No further relevant information.

Toxicological Data: Isopropyl Alcohol (2-Propanol) (CAS: 67-63-0)

LC50 Fish 1:

4200 mg/l (96 h; Rasbora heteromorpha; Flow-through system)

EC50 Daphnia 1:

> 10000 mg/l (48 h; Daphnia magna)

LC50 Fish 2:

9640 mg/l (96 h; Pimephales promelas; Lethal)

EC50 Daphnia 2:

13299 mg/l (48 h; Daphnia magna)

Threshold Limit Algae1:

> 1000 mg/l (72 h; Scenedesmus subspicatus; Growth rate)

Threshold Limit Algae 2:

1800 mg/l (72 h; Algae; Cell numbers)

Toxicological Data: 2-Butoxyethanol (CAS:111-76-2)

Acute aquatic, fish Value:

1,474 mg/l [Method of testing: LC50 (OECD 203) Fish, species: Oncorhynchus mykiss. Duration: 96h]

Acute aquatic, algae Value:

1,840 mg/l [Method of testing: EC50 (OECD 201), Algae, species: Pseudokirchneriella subcapitata. Duration: 72h]

Acute aquatic, Daphnia Value:

1,550 mg/l [Method of testing: EC50 (OECD 202) Daphnia, species: Daphnia magna. Duration: 48h]

Other ecotoxicological information, Fish:

Chronic toxicity: NOEC (21 d) > 100 mg/l, Brachydanio rerio

Other ecotoxicological information, Crustaceans:

13 Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible.

Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

14 Transport information

UN Number: ADR/RID, IMDG, IATA: Not applicable

UN Proper Shipping Name: ADR/RID, IMDG, IATA: Not applicable

Transport hazard class(es): Not applicable

Packing group, if applicable: Not applicable

Environmental hazards: None

Special precaution for user: See section 7

Transport in bulk according to Annex II of Marpol 73/78 and the IBCcode: Not applicable

15 Regulatory information

Safety, health and environmental regulations specific for the product in question

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I:** None of the ingredients is listed.

Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

16 Other information

Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Abbreviations and acronyms:**

ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service (division of the American Chemical Society)

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

PBT: Persistent, Bioaccumulative and Toxic

VOC: Volatile Organic Compounds (USA, EU)

vPvB: very Persistent and very Bioaccumulative

H225: Highly flammable liquid and vapor.

H302: Harmful if swallowed.

H312: Harmful in contact with skin.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H336: May cause drowsiness or dizziness.

Flam. Liq. 2: Flammable liquid; Hazard Category 2
Acute Tox.4 (oral): Acute oral toxicity; Hazard Category 4
Acute Tox.4 (dermal): Acute dermal toxicity; Hazard Category 4
Acute Tox.4 (inhalation): Acute inhalation toxicity; Hazard Category 4

Skin Irrit. 2: Skin corrosion /irritation; Hazard Category 2
Eye Irrit. 2: Serious eye damage / eye irritation; Hazard Category 2
STOT SE 3: Specific target organ toxicity – single exposure; Hazard Category 3

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