



Glass Cleaner Hyper Concentrate

SAFETY DATA SHEET

SECTION 1: Identification

1.1 Product identifier

Product name Glass Cleaner Hyper Concentrate
Product number 6340

1.3 Recommended use of the chemical and restrictions on use

Glass Cleaner

1.4 Supplier's details

Name Ardex Labs.
Address 2050 Byberry Rd
Philadelphia PA 19116
United States of America

Telephone 2156980500
email info@ardexlabs.com

1.5 Emergency phone number(s)

800-424-9300
CHEMTREC – TOLL FREE 24 HOUR EMERGENCY TELEPHONE
NUMBER

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: (US) OSHA (29 CFR 1910.1200)

- Acute toxicity, dermal (chapter 3.1), Cat. 4
- Acute toxicity, inhalation (chapter 3.1), Cat. 4
- Acute toxicity, oral (chapter 3.1), Cat. 4
- Eye damage/irritation (chapter 3.3), Cat. 1
- Flammable liquids (chapter 2.6), Cat. 4
- Skin corrosion/irritation (chapter 3.2), Cat. 2

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)



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H227	Combustible liquid
H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H318	Causes serious eye damage
H332	Harmful if inhaled

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands and exposed skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/if you feel unwell,
P302+P352	IF ON SKIN: Wash with plenty of water
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P330	Rinse mouth.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use foam/CO2 to extinguish.
P403+P235	Store in a well ventilated place. Keep cool.
P501	Dispose of contents/container to local, state, and federal regulations

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Component	Concentration
ETHYLENE GLYCOL MONOBUTYL ETHER (CAS no.: 111-76-2; EC no.: 203-905-0; Index no.: 603-014-00-0) (weight)	> 0 - <= 80 %
CLASSIFICATIONS: Acute toxicity, oral (chapter 3.1), Cat. 4; Flammable liquids (chapter 2.6), Cat. 4; Acute toxicity, dermal (chapter 3.1), Cat. 4; Skin corrosion/irritation (chapter 3.2), Cat. 2; Eye damage/irritation (chapter 3.3), Cat. 2A; Acute toxicity, inhalation (chapter 3.1), Cat. 4. HAZARDS: No data available.	
Mixed Surfactant	> 0 - <= 20 % (weight)
CLASSIFICATIONS: Acute toxicity, oral (chapter 3.1), Cat. 4; Acute toxicity, inhalation (chapter 3.1), Cat. 4; Eye damage/irritation (chapter 3.3), Cat. 1. HAZARDS: H302+H332 - Harmful if swallowed or if inhaled; H318 - Causes serious eye damage.	

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).
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If inhaled	Move person to fresh air; if effects occur, consult a physician.
In case of skin contact	Wash off with plenty of water. Suitable emergency safety shower facility should be available in work area.
In case of eye contact	Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.
If swallowed	Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.
Personal protective equipment for first-aid responders	See Section 8 for exposure and PPE recommendations

4.2 Most important symptoms/effects, acute and delayed

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Due to structural analogy and clinical data, this material may have a mechanism of intoxication similar to ethylene glycol. On that basis, treatment similar to ethylene glycol intoxication may be of benefit. In cases where several ounces (60 - 100 ml) have been ingested, consider the use of ethanol and hemodialysis in the treatment. Consult standard literature for details of treatment. If ethanol is used, a therapeutically effective blood concentration in the range of 100 - 150 mg/dl may be achieved by a rapid loading dose followed by a continuous intravenous infusion. Consult standard literature for details of treatment. 4-Methyl pyrazole (Antizol®) is an effective blocker of alcohol dehydrogenase and should be used in the treatment of ethylene glycol (EG), di- or triethylene glycol (DEG, TEG), ethylene glycol butyl ether (EGBE), or methanol intoxication if available. Fomepizole protocol (Brent, J. et al., New England Journal of Medicine, Feb. 8, 2001, 344:6, p. 424-9): loading dose 15 mg/kg intravenously, follow by bolus dose of 10 mg/kg every 12 hours; after 48 hours, increase bolus dose to 15 mg/kg every 12 hours. Continue fomepizole until serum methanol, EG, DEG, TEG or EGBE are undetectable. The signs and symptoms of poisoning include anion gap metabolic acidosis, CNS depression, renal tubular injury, and possible late stage cranial nerve involvement. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Maintain adequate ventilation and oxygenation of the patient. In severe poisoning, respiratory support with mechanical ventilation and positive end expiratory pressure may be required. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Repeated excessive exposure may aggravate preexisting blood disease (anemia).

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

5.2 Specific hazards arising from the chemical



Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

5.3 Special protective actions for fire-fighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Isolate area. Keep unnecessary and unprotected personnel from entering the area. No smoking in area. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

6.2 Environmental precautions

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

6.3 Methods and materials for containment and cleaning up

Contain spilled material if possible. Small spills: Absorb with materials such as: Non-combustible material. Clay. Zorb-all®. Large spills: Dike area to contain spill. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not swallow. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash thoroughly after handling. Keep away from heat, sparks and flame. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.



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Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

7.2 Conditions for safe storage, including any incompatibilities

Store in the following material(s): Carbon steel. Stainless steel. Phenolic lined steel drums. Do not store in: Aluminum. Copper. Galvanized iron. Galvanized steel. See Section 10 for more specific information.

Specific end use(s)

Glass cleaner

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

CAS: (not specified)

Poly(ethylene oxide)
10 mg/m³ TWA

CAS: 111-76-2

2-Butoxyethanol

Cal/OSHA: 20 ppm PEL inhalation; NIOSH: 5 ppm REL inhalation; OSHA: 50 ppm PEL inhalation; 240 mg/m³ PEL inhalation

ETHYLENE GLYCOL MONOBUTYL ETHER

OSHA: dermal

8.2 Appropriate engineering controls

Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms



Eye/face protection

Use chemical goggles. If exposure causes eye discomfort, use a full-face respirator.

Skin protection

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.



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Body protection

Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

The following should be effective types of air-purifying respirators: Organic vapor cartridge.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	CLEAR dark blue, THIN LIQUID
Odor	Minty
Odor threshold	No data available.
pH	7.8
Melting point/freezing point	17.6° F
Initial boiling point and boiling range	200-265 DEF. F
Flash point	>170F
Evaporation rate	1.1
Flammability (solid, gas)	No data available.
Upper/lower flammability limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	0.8-1.2 (@20deg C)
Solubility(ies)	Miscible
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Product is nonreactive when used and store as directed.

10.2 Chemical stability

Product is stable when used and stored as directed.

10.3 Possibility of hazardous reactions

Hazardous Polymerization will not occur

10.4 Conditions to avoid

Avoid direct sunlight. Keep cool.



10.5 Incompatible materials

Avoid strong Oxidizers and strong Acids. Highly Electrovalent Metals at elevated temperatures (e.g., Al, Fe, Mg).

10.6 Hazardous decomposition products

Toxic gases (such as Formic Acid, Carbon Monoxide, Nitrogen Oxides, Ammonia)

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Mixed Surfactant

LD50 Oral - Rat - 960-3980 mg/kg

Remarks: Typical for this family of materials

Mixed Surfactant

LD50 Skin - Rabbit - 2000-2991 mg/kg

Remarks: Prolonged skin contact is unlikely tlt in absorption of harmful amounts

Mixed Surfactant

LC50 Inhalation - Rat - 1.15

Remarks: Typical for this family of materials

ETHYLENE GLYCOL MONOBUTYL ETHER

LD50 Oral - Guinea pig - 1400 mg/kg

Citation: DOW Chemical rev. date: 04/21/2015

ETHYLENE GLYCOL MONOBUTYL ETHER

LD50 Oral - Rat - 1300 mg/kg

Citation: DOW Chemical rev. date: 04/21/2015

ETHYLENE GLYCOL MONOBUTYL ETHER

LD50 Skin - Guinea pig - >2000 mg/kg

Citation: DOW Chemical rev. date: 04/21/2015

ETHYLENE GLYCOL MONOBUTYL ETHER

LC50 Inhalation - Guinea pig - >3.1 mg/l - 1hr

Result: No deaths occurred at this value

Remarks: vapor

Citation: DOW Chemical rev. date: 04/21/2015

Skin corrosion/irritation

No data available.

Serious eye damage/irritation

No data available.

Respiratory or skin sensitization

ETHYLENE GLYCOL MONOBUTYL ETHER



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Result: Did not cause allergic skin reactions when tested in humans.
Did not cause allergic skin reactions when tested in guinea pigs.
Citation: DOW Chemical rev. date: 04/21/2015

Germ cell mutagenicity

No data available.

Carcinogenicity

ETHYLENE GLYCOL MONOBUTYL ETHER

ACGIH carcinogen

Result: A3: Confirmed animal carcinogen with unknown relevance to humans.

Citation: DOW Chemical rev. date: 04/21/2015

Reproductive toxicity

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

SECTION 12: Ecological information

Toxicity

Mixed Surfactant

LC50 - Daphnia magna (water flea) - 9.3-21.4 mg/l - 48hr

Remarks: For this family of materials

Mixed Surfactant

LC50 - Pimephales promelas (fathead minnow) - 3.8-6.2 mg/l - 96hr

Remarks: For this family of materials

ETHYLENE GLYCOL MONOBUTYL ETHER

LC50 - Oncorhynchus mykiss (rainbow trout) - 1474 mg/l - 96hr

Result: Acute Toxicity

Remarks: OECD Test guideline 203

Citation: DOW Chemical rev. date: 04/21/2015

ETHYLENE GLYCOL MONOBUTYL ETHER

EC50 - Daphnia magna (water flea) - 1550 mg/l - 48hr

Result: Acute Toxicity

Remarks: OECD Test guideline 203

Citation: DOW Chemical rev. date: 04/21/2015

ETHYLENE GLYCOL MONOBUTYL ETHER



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EbC50 - Pseudokirchneriella subcapitata (green algae) - 911 mg/l - 72hr
Result: Acute Toxicity: Biomass
Citation: DOW Chemical rev. date: 04/21/2015

ETHYLENE GLYCOL MONOBUTYL ETHER
IC50 - Bacteria - >1000 mg/l
Result: Acute Toxicity: Growth inhibition
Citation: DOW Chemical rev. date: 04/21/2015

ETHYLENE GLYCOL MONOBUTYL ETHER
NOEC - Danio rerio (zebra fish) - >100 mg/l - 21days
Result: Chronic Toxicity
Citation: DOW Chemical rev. date: 04/21/2015

ETHYLENE GLYCOL MONOBUTYL ETHER
NOEC - Daphnia magna (water flea) - >100 mg/l - 21days
Result: Chronic Toxicity
Citation: DOW Chemical rev. date: 04/21/2015

Persistence and degradability

Mixed Surfactant
- 2.15-2.25 mg/kg Theoretical Oxygen Demand - 28days

Mixed Surfactant
- 2.09-2.25 mg/kg Chemical Oxygen Demand - 28days

Bioaccumulative potential

Mixed Surfactant
- Partition coefficient: n-octanol/water(log Pow): 2.1 - 3.4 Calculated.

Mixed Surfactant
- Bioconcentration factor (BCF): 5.9 - 48 Fish. Estimated.

ETHYLENE GLYCOL MONOBUTYL ETHER
OECD

Result: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability).

10-day Window: Pass
Biodegradation: 90.4 %

Exposure time: 28 d
Method: OECD Test Guideline 301B or Equivalent
Theoretical Oxygen Demand: 2.30 mg/mg
Citation: DOW Chemical rev. date: 04/21/2015

ETHYLENE GLYCOL MONOBUTYL ETHER
OECD

Result: Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): 0.81 Measured
Bioconcentration factor (BCF): 3.2
Citation: DOW Chemical rev. date: 04/21/2015



Mobility in soil

ETHYLENE GLYCOL MONOBUTYL ETHER

Result: Potential for mobility in soil is high (Koc between 50 and 150).

Partition coefficient(Koc): 67 Estimated.

Citation: DOW Chemical rev. date: 04/21/2015

Results of PBT and vPvB assessment

No data available.

Other adverse effects

No data available.

SECTION 13: Disposal considerations

Disposal of the product

Dispose of product in accordance with local, state, and federal regulations.

Disposal of contaminated packaging

Dispose of product in accordance with local, state, and federal regulations.

Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on empty containers.

Waste treatment

No data available.

Sewage disposal

Do not dispose of product in sewers.

Other disposal recommendations

No data available.

SECTION 14: Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

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

New Jersey Right To Know Components



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Common name: 2-BUTOXY ETHANOL
CAS number: 111-76-2

Pennsylvania Right To Know Components

Chemical name: Ethanol, 2-butoxy-
CAS number: 111-76-2

SARA 311/312 Hazards

Chemical name: Ethanol, 2-butoxy-
CAS number: 111-76-2....Acute Health Hazard, Fire Hazard, Chronic Health Hazard

Mixed Surfactant: Acute Health Hazard

SARA 313 Components

Chemical name: Ethanol, 2-butoxy-
CAS number: 111-76-2

Toxic Substances Control Act (TSCA) Inventory

Chemical name: Ethanol, 2-butoxy-
CAS number: 111-76-2.....Compliant

SECTION 16: Other information

Revision Date:
01/28/2021

Other Information:

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Party Responsible for the Preparation of This Document

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012