

SAFETY DATA SHEET

Glass Cleaner Concentrate

SDS No: 4031-1

Version: 1.1 (REG_29 CFR 1910.1200/REG_ GHS Rev.5th e.2013)

Date of last Revision: 08/19/2014

1. Identification of the substance or mixture and of the supplier

1.1 Product identifier used on the label: Glass Cleaner Concentrate

1.2 Other means of identification: Not Applicable

1.3 Recommended use of the chemical and restrictions on use: An automotive concentrated glass cleaner. This material should not be used for any other purpose than that recommended without expert advice.

1.4 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

J.B.Chemical Co., Inc.
14803 S. Spring Street
Gardena, CA 90248, USA
310-532-3021
800-522-2468

1.5 Emergency phone numbers:

J.B.Chemical Co., Inc.: (310) 532-3021, (800) 522-2468 Monday - Friday, 7:00am - 3:00pm PST
Chemtrec: (800) 424-9300 - Outside the continental U.S.: (703) 527-3887 24 Hours

2. Hazard(s) identification

2.1 Classification of the chemical in accordance with 29 CFR 1910.1200(d) and GHS Rev.5th e.2013:

This product is classified as hazardous.

Flammable Liquid Category 4
Aspiration Toxicity Category 1
Acute Toxicity(Oral) Category 5
Acute Toxicity(Dermal) Category 5
Acute Toxicity(Inhalation) Category 4
Skin Irritation Category 2
Eye Irritation Category 2A

2.2 Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with 29 CFR 1910.1200(f) and GHS Rev.5th e.2013:

Signal word: Danger

Hazard statement(s):

- **Physical Hazards:** H227: Combustible liquid.
- **Health Hazards:** H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H303: May be harmful if swallowed.
H313: May be harmful in contact with skin.
H332: Harmful if inhaled.

Symbol(s):



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Precautionary statement(s):

Prevention:

- P102: Keep out of reach of children.
- P210: Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
- P264: Wash hands thoroughly after handling.
- P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
- P271: Use only outdoors or in a well-ventilated area.
- P280: Wear protective gloves/ eye protection.

Response:

- P370+P378: In case of fire; Use water spray, carbon dioxide, dry chemical or alcohol foam for extinction.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P332+P313: If skin irritation occurs: Get medical advice/attention.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313: If eye irritation persists: Get medical advice/attention.
- P301+P310+P331: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.
- P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P362: Take off contaminated clothing and wash before reuse.
- P312: Call a POISON CENTER or doctor/ physician if you feel unwell.

Storage:

- P405: Store locked up.
- P403: Store in a well-ventilated place.
- P233: Keep container tightly closed.

Disposal:

P501: Dispose of contents/container in accordance with CERCLA/CWA (Section 311)/SARA Title III Regulations.

- 2.3 Describe any hazards not otherwise classified that have been identified during the classification process**
 On exposure to air, peroxidation of the product may result in increased fire and explosion risk.
- 2.4 Where an ingredient with unknown acute toxicity is used in a mixture at a concentration ≥ 1% and the mixture is not classified based on testing of the mixture as a whole, a statement that X% of the mixture consists of ingredient(s) of unknown acute toxicity is required:** Not Applicable

3.Composition/ information on ingredients

Chemical name	CAS No.	EC No.	Concentration (Wt%)	Classification 29 CFR 1910.1200(d)/GHS
Ethylene glycol monobutyl ether	111-76-2	203-905-0	45.00-65.00	Acute Tox.4 H302 Acute Tox.4 H312 Skin Irrit.2 H315 Eye Irrit.2 H319 Acute Tox.4 H332 Asp Tox.1 H304 Flam Liq.4 H227

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4. First-aid measures

4.1 Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion.

- **Inhalation:** If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, get medical attention.
- **Skin contact:** Clean affected areas with mild soap and water. Remove contaminated clothing, including shoes, and launder before reuse or discard. If any irritation persists, seek medical attention.
- **Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If any irritation persists, get medical attention.
- **Ingestion:** Do not induce vomiting or give anything by mouth. If victim is drowsy or unconscious, place on the left side with head down. If possible, do not leave victim unattended. Get medical attention immediately.

4.2 Most important symptoms/effects, acute and delayed: Skin and eye irritation.

4.3 Indication of immediate medical attention and special treatment needed, if necessary: Persistent skin and eye or respiratory tract irritation. Also Pulmonary edema, headache, fever, cough, shortness of breath and CNS depression.

5. Fire-fighting measures

5.1 Suitable (and unsuitable) extinguishing media: Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. Do not discharge extinguishing waters into the aquatic environment.

5.2 Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products): Carbon monoxide may be evolved if incomplete combustion occurs. Will float and can be reignited on surface water. The vapor is heavier than air, spreads along the ground and distant ignition is possible.

5.3 Special protective equipment and precautions for fire-fighters: Wear full protective clothing and self-contained breathing apparatus.

6. Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures:

Wear protective equipment to prevent skin and eye contact and breathing in vapors.

6.2 Methods and materials for containment and cleaning up:

Prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labeled containers or drums for disposal. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

7. Handling and storage

7.1 Precautions for safe handling:

Avoid breathing mists or vapors. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling. Do not wear contaminated clothing or shoes.

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7.2 Conditions for safe storage, including any incompatibilities:

For small containers, keep out of reach of children. Keep tightly closed and store in a cool and well ventilated area. Store only in approved containers and protect from physical damage. Storage should meet OSHA standards. Empty drums should be completely drained, properly bunged, and promptly shipped to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulation. Do not overheat; product will start boiling if heated above 200°F. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.

8.Exposure controls/ personal protection

8.1 OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available:

Component(s):

Chemical name	Type	Exposure Limit values	Source
Ethylene glycol monobutyl ether	TWA	20 ppm	US. ACGIH Threshold Limit Values (01 2010)
Ethylene glycol monobutyl ether	PEL	50 ppm / 240 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

8.2 Appropriate engineering controls: Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.3 Individual protection measures, such as personal protective equipment:

- **Eye/face protection:** Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended: Safety Glasses with side shields
- **Skin/hand protection:** Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Gloves made from the following material(s) are recommended: Nitrile rubber, PVC
- **Respiratory protection:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use and maintenance must be in accordance with regulatory requirements. If applicable, types of

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respirators to be considered for this material include: half-face air-purifying filter respirator suitable for organic vapors and particulates (P95).

9. Physical and chemical properties

Appearance (physical state, color, etc.):	Liquid, blue color
Odor:	Characteristic
Odor threshold:	Not Determined
pH:	7.00
Melting point/freezing point:	Not Determined
Initial boiling point and boiling range:	212 °F
Flash point:	>60°C(140°F)
Evaporation rate:	Not Determined
Flammability (solid, gas):	Not Applicable
Upper/lower flammability or explosive limits:	Not Determined
Vapor pressure:	Not Determined
Vapor density:	Not Determined
Relative density:	0.938 at 77°F (Water=1)
Solubility(ies):	Soluble in water
Partition coefficient: n-octanol/water:	Not Determined
Auto-ignition temperature:	Not Determined
Decomposition temperature:	Not Determined
Viscosity:	Not Determined

10. Stability and reactivity

10.1 Reactivity: This material is considered to be non- reactive under normal use conditions.

10.2 Chemical stability: Stable.

10.3 Possibility of hazardous reactions: Hazardous polymerization will not occur.

10.4 Conditions to avoid (e.g., static discharge, shock, or vibration): Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials: Strong oxidizing agents.

10.6 Hazardous decomposition products: On exposure to air, peroxidation may result in increased fire and explosion risk. Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

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11.Toxicological information

Description of the various toxicological (health) effects and the available data used to identify those effects, including:

- 11.1 Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):**
- **Inhalation:** Harmful if inhaled. Avoid breathing dust/fume/gas/mist/vapors/spray.
 - **Ingestion:** May be fatal if swallowed and enters airways. Swallowing may cause gastrointestinal disturbances. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.
 - **Skin contact:** Direct prolonged or repeated contact causes moderate irritation. May be harmful in contact with skin.
 - **Eye contact:** Direct contact causes serious eye irritation with redness and tearing.
- 11.2 Symptoms related to the physical, chemical and toxicological characteristics:** Not Determined
- 11.3 Delayed and immediate effects and also chronic effects from short- and long-term exposure:** See section 11.1.
- 11.4 Numerical measures of toxicity (such as acute toxicity estimates):** Not determined on the mixture.

Acute toxicity

Name (Components)	Route	Species	Value
Ethylene glycol monobutyl ether CAS No:111-76-2	Dermal	Rat	LD50 > 2000 mg/kg
“	Ingestion	Rat	LD50 > 1300 mg/kg
“	Inhalation-vapor (3 hours)	Rat	LC50 > 4.9 mg/l

Skin Corrosion/Irritation

Name (Components)	Species	Value
Ethylene glycol monobutyl ether CAS No:111-76-2	Rabbit (24 hours)	Moderate irritation

Serious Eye Damage/Irritation

Name (Components)	Species	Value
Ethylene glycol monobutyl ether CAS No:111-76-2	Rabbit (24 hours)	Moderate irritation

Respiratory or skin sensitization

Name (Components)	Species	Value
Ethylene glycol monobutyl ether CAS No:111-76-2	Guinea Pig	Not a skin sensitizer

Germ Cell Mutagenicity

Name (Components)	Route	Value
Ethylene glycol monobutyl ether	In Vitro: Salmonella typhimurium	negative +/- activation

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CAS No:111-76-2	assay (Ames test)	
“	In Vivo	

Carcinogenicity

Name (Components)	Route	Species	Value
Ethylene glycol monobutyl ether CAS No:111-76-2			Not Classified

Reproductive toxicity

Name (Components)	Route	Species	Value	Test Result	Exposure Duration
Ethylene glycol monobutyl ether CAS No:111-76-2			Not Classified		

Specific Target Organ Toxicity - single exposure

Name (components)	Route	Species	Target Organ	Value	Test Result	Exposure Duration
Ethylene glycol monobutyl ether CAS No:111-76-2	Inhalation		Central Nervous System	May cause drowsiness or dizziness	NOAEL	

Specific Target Organ Toxicity - repeated exposure

Name (components)	Route	Species	Target Organ	Value	Test Result	Exposure Duration
Ethylene glycol monobutyl ether CAS No:111-76-2	Dermal	Rat		150 mg/kg	NOAEL	
“	Ingestion	Rat	Liver	69 mg/m3	LOAEL	
“	Inhalation	Rat	Blood	152 mg/m3	LOAEL	

Aspiration Hazard

Name (Components)	Value
Ethylene glycol monobutyl ether CAS No:111-76-2	Aspiration Hazard Toxicity Category 1

12.Ecological information

- 12.1 **Ecotoxicity (aquatic and terrestrial, where available):** Not determined
- 12.2 **Persistence and degradability:** Not determined
- 12.3 **Bioaccumulative potential:** Not determined
- 12.4 **Mobility in soil:** Not determined
- 12.5 **Other adverse effects (such as hazardous to the ozone layer):** Not determined

13.Disposal considerations

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13.1 Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging: Dispose of contents/ container in accordance with the local/regional/national/international regulations. Do not contaminate any lakes, streams, ponds, or underground water supplies.

14. Transport information

14.1 UN number: Not regulated

14.2 UN proper shipping name: Not regulated

14.3 Transport hazard class(es): Not regulated

14.4 Packing group, if applicable: Not regulated

14.5 Environmental hazards (e.g., Marine pollutant (Yes/No)): Not determined

14.6 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not regulated

14.7 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises: Not regulated

15. Regulatory information

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

- **OSHA Hazard Communication Standard:** When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.
- **TSCA:** Components of this product are listed on the TSCA Inventory.
- **SARA Title III, Section 302 (Extremely Hazardous Substances):** None.
- **SARA Title III, Section 313:** This product contains 2-Butoxyethanol (CAS No: 111-76-2 ≤ 65.00%) which is subject to the reporting requirements of SARA Title III, Section 313 as category N230-Glycol Ethers.
- **SARA Title III, Section 311/312 Classifications:**

Fire Hazard: Yes	Pressure Hazard: No	Reactivity Hazard: No
Immediate Hazard: Yes	Delayed Hazard: Yes	
- **CERCLA Hazardous Substances:** This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.
- **CLEAN WATER ACT/OIL POLLUTION ACT:** None
- **CA PROP 65:**

WARNING! This product contains a chemical known to the State of California to cause cancer: None.
WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm: None.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

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16. Other information including date of preparation or last revision

Full text of H-Statements referred to under sections 2 and 3:

H302: Harmful if swallowed.

H304: May be fatal if swallowed and enters airways.

H312: Harmful in contact with skin.

H315: Causes skin irritation.

H316: Causes mild skin irritation.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H336: May cause drowsiness or dizziness.

Asp Tox.1: Aspiration Toxicity Category 1

Acute Tox.4: Acute Toxicity Category 4

Eye Irrit.2: Eye Irritation Category 2

Flam Liq.2 or 4: Flammable Liquid Category 2 or 4

Skin Irrit.2: Skin Irritation Category 2

STOT SE3: Specific Target Organ Toxicity Single Exposure Category 3

Sources of key data used to compile the Safety Data Sheet:

International Agency for Research on Cancer

International Air Transport Association: Dangerous Goods Regulations.

International Maritime Organization: International Maritime Dangerous Goods Code

Components supplier data

Globally harmonized system of classification and labeling of chemicals (GHS Rev.5th e.2013)

European Chemicals Agency website

EU Registration, Evaluation and Restriction of Chemicals regulation (REACH): Classification and Labeling Inventory

US California Proposition 65

US Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

US Department of Health & Human Services. National Toxicology Program

US Department of Transport DOT 49 CFR

US National Fire Protection Association (NFPA) 704

US National Institute for Occupational Safety & Health (NIOSH) (exposure limits)

US Occupational Safety & Health Administration (OSHA) 29 CFR 1910.1200 (Hazard Communication Standard)

US OSHA 29 CFR 1910.1000 - Table Z1 (exposure limits)

US Superfund Amendments and Reauthorization Act (SARA) Title III Sections 302; 311/312 ; 313

US Toxic Substances Control Act (TSCA)

Key or legend to abbreviations and acronyms used in the safety data sheet:

ACGIH - American Conference of Governmental Industrial Hygienists

CAS No - Chemical Abstract System No.

CERCLA- US Comprehensive Environmental Response, Compensation, and Liability Act

COC - Cleveland Open Cup (flash and fire point)

DOT -Department Of Transportation

EPA - Environmental Protection Agency

IARC - International Agency for Research on Cancer

IATA - International Air Transport Association

IMDG - International Maritime Dangerous Goods code

mg/m³ - milligrams per cubic meter

mg/l - milligrams per liter

NIOSH - National Institute for Occupational Safety and Health

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NFPA- US National Fire Protection Association
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limits
ppb - Parts Per Billion
ppm - Parts Per Million
PMCC - Pensky-Martin Closed Cup (flash point)
RCRA - EPA Resource Conservation and Recovery Act
SARA - Superfund Amendments and Reauthorization Act Title I, II, III
SDS - Safety Data Sheet
STEL- Short Term Exposure Limit
TCC - Tag Closed Cup (flash point)
TLV - Threshold Limit Value
TWA - Time Weighted Average Exposure
< - Less than
> - More than

Procedure used to derive the classification for mixtures according to Regulations 29 CFR 1900.1200 and GHS Rev.5th e.2013:

Calculation method: Classification of mixtures based on ingredients of the mixture.

LEGAL DISCLAIMER:

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Prepared by: J.B.Chemical Regulatory Affairs

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