SAFETY DATA SHEET

Section 1 - Identification

Product Identifier: C-ALL Ammoniated Window & Glass Cleaner
Other means of identification: 1315
Recommended use: Glass cleaner.
Recommended restrictions: For commercial and industrial use only.

Manufacturer / Importer / Supplier / Distributor Information
Company Name: National Chemical Laboratories of PA, Inc.
Address: 401 N. 10th Street - Philadelphia, PA 19123
Telephone: 1 (215) 922-1200
Supplier Email: info@nclonline.com
Contact: CHEM-TEL
Emergency Phone: 1 (800) 255-3924

Section 2 - Hazard(s) Identification

Physical Hazards: Not Classified
Health Hazards: Serious eye damage/eye irritation
OSHA defined hazards: Not Classified.

Label Elements
Hazard Symbol: None.
Signal Word: Warning
Hazard Statement: Causes eye irritation.
Precautionary statement
Prevention: Wash thoroughly after handling.
Response: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Storage: Store in a well-ventilated place. Keep cool.
Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition/Information on ingredients

Mixture
Hazardous Components
Ingredient Name: 2-Butoxyethanol
CAS #: 111-76-2
%: 1 - 5
Ingredient Name: 2-Propanol
CAS #: 67-63-0
%: 1 - 5

Section 4 - First-aid Measures

Inhalation: Move to fresh air. Get medical attention if irritation persists.
Skin contact: Wash skin with water. Get medical attention if irritation persists.
Eye contact: Flush eyes thoroughly with water for at least 15 minutes. Get medical attention if irritation persists.
Ingestion: Immediately rinse mouth and drink plenty of water. Keep person under observation. Do not induce vomiting. If vomiting occurs, keep head low. If person becomes uncomfortable seek medical advice.

Most Important symptoms /effects, acute and delayed: May cause eye irritation. Exposed individuals may experience eye tearing, redness, and discomfort. Prolonged or repeated skin contact may cause drying, cracking, or irritation.

Indication of immediate medical attention and special treatment: Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

Section 5 - Fire-fighting measures

Suitable extinguishing media: In case of fire, use water spray, dry chemical, or CO2. Avoid using a direct stream of water.
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Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment /instructions
Move containers from fire area if you can do it without risk. Cool material exposed to heat with water spray and remove it if no risk is involved.

Section 6 - Accidental release measures

Personal precautions, protective equipment and emergency procedures.
Isolate area. Keep unnecessary personnel away. Ventilate the area. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Use personal protection as recommended in Section 8 of the SDS.

Methods and materials for containment and cleaning up
SMALL SPILLAGE: Absorb spillage with suitable absorbent material.
LARGE SPILLS: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. After removal flush contaminated area thoroughly with water.

Environmental precautions
Avoid discharge into drains, water courses or onto the ground.

Section 7 - Handling and storage

Precautions for safe handling
Avoid breathing mist or vapor. Avoid contact with skin and eyes. Wash hands thoroughly after handling. Provide adequate ventilation. Keep container closed. Keep away from heat, spark, open flames and other sources of ignition. Use Personal Protective Equipment recommended in section 8 of the SDS.

Conditions for safe storage, including any incompatibilities
Store in original tightly closed container. Keep containers closed when not in use. Store at ambient temperature and atmospheric pressure. Store away from incompatible materials (see Section 10 of the SDS).

Section 8 - Exposure control/personal protection

OCCUPATIONAL EXPOSURE LIMITS

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>TWA</td>
<td>240 mg/m³, 50 ppm</td>
</tr>
<tr>
<td>2-Propanol (CAS 67-63-0)</td>
<td>TWA</td>
<td>980 mg/m³, 400ppm</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>400 ppm</td>
</tr>
<tr>
<td>2-Propanol (CAS 67-63-0)</td>
<td>TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>TWA</td>
<td>20 ppm</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>TWA</td>
<td>24 mg/m³, 5 ppm</td>
</tr>
<tr>
<td>2-Propanol (CAS 67-63-0)</td>
<td>IDLH</td>
<td>2000 ppm</td>
</tr>
<tr>
<td>2-Propanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>1225 mg/m³, 500 ppm</td>
</tr>
<tr>
<td>2-Propanol (CAS 67-63-0)</td>
<td>TWA</td>
<td>980 mg/m³, 400ppm</td>
</tr>
</tbody>
</table>

US. ACGIH BEIs. Biological Exposure Indices

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
<th>Determinate</th>
<th>Specimen</th>
<th>Sampling Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanol (CAS 67-63-0)</td>
<td>200 mg/g</td>
<td>Butyoxacetic acid (BAA), with hydrolysis</td>
<td>Creatinine in urine</td>
<td>*</td>
</tr>
<tr>
<td>2-Propanol (CAS 67-63-0)</td>
<td>40 mg/l</td>
<td>Acetone</td>
<td>Urine</td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>200 mg/g</td>
<td>Butyoxacetic acid (BAA), with hydrolysis</td>
<td>Creatinine in urine</td>
<td>*</td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

Exposure guidelines
Use personal protective equipment as required. Keep working clothes separately.

US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants

Composition
2-Butoxyethanol (CAS 111-76-2)
Can be absorbed though the skin.

US. Minnesota Hazardous Substances List (Minn. Rules 5206.0400).

Composition
2-Butoxyethanol (CAS 111-76-2)
Skin designation applies.

US. NIOSH: Pocket Guide to Chemical Hazards

Composition
2-Butoxyethanol (CAS 111-76-2)
Can be absorbed though the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.100)

Composition
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Section 9 - Physical and chemical properties

Appearance
Clear.
Physical state
Liquid.
Form
Liquid.
Color
Light Blue.
Odor
Mild Ammonia.
Odor threshold
Not available.
pH
10.7
Melting point/freezing point
Not available.
Initial boiling point and boiling range
212 °F (100 °C)
Flash point
> 201.0 °F (> 94.0 °C)
Evaporation rate
Not available.
Flammability (solid, gas)
Not applicable.
Upper/lower flammability or explosive limits
Flammability limit - lower (%)
Not available.
Flammability limit - upper (%)
Not available.
Explosive limit - lower (%)
Not available.
Explosive limit - upper (%)
Not available.
Vapor pressure
Not available.
Vapor density
Not available.
Relative density
0.99 ± 0.01
Relative density temperature
75 °F (23.9 °C)
Solubilities (water)
Soluble
Partition Coefficient
Not available
n-octanol/water
Not available
Auto-ignition temperature
Not Available
Decomposition temperature
Not Available
Viscosity
< 10 cP
Viscosity Temperature
75 °F (23.9 °C)

Section 10 - Stability and reactivity

Reactivity
The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability
Stable at normal conditions.
Possibility of hazardous reactions
Hazardous polymerization does not occur.
Conditions to Avoid
Contact with incompatible materials.
Incompatible materials
Hazardous Decomposition Products
No hazardous decomposition products are known.

Section 11 - Toxicological information

Information on likely routes of exposure
SAFETY DATA SHEET

Inhalation
Vapors and mist may irritate throat and respiratory system and cause coughing.

Ingestion
May be harmful if swallowed.

Skin contact
Prolonged or repeated skin contact may cause drying, cracking, or irritation.

Eye contact
May cause eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics
May cause eye irritation. Prolonged or repeated skin contact may cause drying, cracking, or irritation.

Information on toxicological effects.
Acute toxicity
May be harmful if swallowed.

<table>
<thead>
<tr>
<th>Component</th>
<th>Level</th>
<th>Type</th>
<th>Code</th>
<th>Species</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>Acute</td>
<td>Dermal</td>
<td>LD50</td>
<td>Rabbit</td>
<td>400 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td>Inhalation</td>
<td>LC50</td>
<td>Mouse</td>
<td>700 ppm, 7 hours</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td>Inhalation</td>
<td>LC50</td>
<td>Rat</td>
<td>450 mg/l, 4 hrs</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td>Oral</td>
<td>LD50</td>
<td>Guinea pig</td>
<td>1.2 g/kg</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td>Oral</td>
<td>LD50</td>
<td>Rabbit</td>
<td>0.32 g/kg</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td>Oral</td>
<td>LD50</td>
<td>Rat</td>
<td>560 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Prolonged or repeated contact may dry skin and cause irritation.

Serious eye damage/eye irritation
May cause eye irritation.

Respiratory sensitization
Not classified.

Skin sensitization
Not available.

Germ cell mutagenicity
Not classified.

Carcinogenicity
Not classified.

IARC Monographs. Overall Evaluation of Carcinogenicity
Component | Result | Comment
---|---|---
2-Butoxyethanol (CAS 111-76-2) | 3 | Not classifiable as to carcinogenicity to humans.

Reproductive toxicity
Not classified.

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
Not classified.

Aspiration hazard
Not available.

Section 12 - Ecological Information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability
The product is expected to be biodegradable.

Bioaccumulative potential
Not known.

Partition coefficient n-octanol / water log (Kow)
<table>
<thead>
<tr>
<th>Components</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanol (CAS 67-63-0)</td>
<td>0.05</td>
</tr>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>0.83</td>
</tr>
</tbody>
</table>

Mobility in soil
Not available.

Mobility in general
The product is water soluble and may spread in water systems.

Other adverse effects
None known.

Section 13 - Disposal considerations

Disposal instructions
Dispose in accordance with applicable federal, state, and local regulations.

Local disposal regulations
Dispose of in accordance with local regulations.

Hazardous waste code
D001: Waste Flammable material with a flash point <140 °F.

Waste from residues / unused products
Dispose in accordance with all applicable regulations.

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Section 14 - Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.
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IMDG
Not regulated as dangerous goods.

Transportation in bulk according to Annex II of MARPOL 73/78 and IBC Code
This substance/mixture is not intended to be transported in bulk.

Section 15 - Regulatory Information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR707, Subpt. D) Not regulated.


CERCLA Hazardous Substance List (40 CFR 302.4)

<table>
<thead>
<tr>
<th>Components</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>LISTED</td>
</tr>
</tbody>
</table>

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories
- Immediate Hazard: No
- Delayed Hazard: No
- Fire Hazard: No
- Pressure Hazard: No
- Reactivity Hazard: No

SARA 302 Extremely hazardous substance: No
SARA 311/312 Hazardous chemical: Yes
SARA 313 (TRI reporting)
<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS #</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HSPs) List Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated.

Drug Enforcement Administration (DEA), List 1  2 Not regulated.

Exempt Chemical Mixtures (21 CFR 1310.12(c))

DEA Exempt Chemical Mixtures Code Number Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List
Components
- 2-Propanol (CAS 67-63-0)
- 2-Butoxyethanol (CAS 111-76-2)

US. New Jersey Worker and Community Right-to-Know Act
Components
- 2-Propanol (CAS 67-63-0)
- 2-Butoxyethanol (CAS 111-76-2)

US. Pennsylvania RTK - Hazardous Substances
Components
- 2-Propanol (CAS 67-63-0)
- 2-Butoxyethanol (CAS 111-76-2)

US. Rhode Island RTK
Components
- 2-Butoxyethanol (CAS 111-76-2)

US - California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory Name</th>
<th>On Inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances</td>
<td>Yes</td>
</tr>
<tr>
<td>United States</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
* A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).
The information contained herein was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond the manufacturer's control, it is the user's responsibility both to determine safe conditions for use of this product and to assume liability for loss, injury, damage or expense arising from the product's improper use. No warranty, expressed or implied, regarding the product described herein shall be created by or inferred from any statement or omission in this SDS. Various government agencies may have specific regulations concerning the transportation, handling, storage, use or disposal of this product which may not be reflected in this SDS. The user should review these regulations to ensure full compliance.