



# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>HydroForce® Glass Cleaner</b>	
<b>Other means of identification</b>		
<b>Product code</b>	74411	
<b>Recommended use</b>	Glass cleaner	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Manufactured or sold by:</b>		
<b>Company name</b>	CRC Canada Co.	
<b>Address</b>	2-1246 Lorimar Dr. Mississauga, Ontario L5S 1R2 Canada	
<b>Telephone</b>	905-670-2291	
<b>Website</b>	www.crc-canada.ca	
<b>E-mail</b>	Support.CA@crcindustries.com	
<b>Emergency phone number</b>	24-Hour Emergency (CHEMTREC)	800-424-9300 (Canada) 703-527-3887 (International)

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>Environmental hazards</b>	Not classified.
<b>Label elements</b>	
<b>Hazard symbol</b>	None.
<b>Signal word</b>	None.
<b>Hazard statement</b>	The mixture does not meet the criteria for classification.
<b>Precautionary statement</b>	
<b>Prevention</b>	Avoid release to the environment.
<b>Response</b>	Wash hands after handling.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards</b>	None known.

## 3. Composition/information on ingredients

### Mixtures

<b>Chemical name</b>	<b>Common name and synonyms</b>	<b>CAS number</b>	<b>%</b>
water		7732-18-5	90 - 100
2-butoxyethanol		111-76-2	1 - 3
isopropyl alcohol		67-63-0	1 - 3
ammonia		7664-41-7	< 0.3

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

<b>Inhalation</b>	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.

<b>Ingestion</b>	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Use fire-extinguishing media appropriate for surrounding materials.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	This product is miscible in water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewer, basements or confined areas.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Do not get in eyes, on skin, or on clothing. For product usage instructions, please see the product label.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value
2-butoxyethanol (CAS 111-76-2)	TWA	20 ppm
ammonia (CAS 7664-41-7)	STEL	35 ppm
	TWA	25 ppm
isopropyl alcohol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

#### Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
2-butoxyethanol (CAS 111-76-2)	TWA	97 mg/m <sup>3</sup>
		20 ppm
ammonia (CAS 7664-41-7)	STEL	24 mg/m <sup>3</sup>
		35 ppm
	TWA	17 mg/m <sup>3</sup>

**Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)**

Components	Type	Value
isopropyl alcohol (CAS 67-63-0)	STEL	25 ppm 984 mg/m3
	TWA	400 ppm 492 mg/m3 200 ppm

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

Components	Type	Value
2-butoxyethanol (CAS 111-76-2)	TWA	20 ppm
ammonia (CAS 7664-41-7)	STEL	35 ppm
	TWA	25 ppm
isopropyl alcohol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

Components	Type	Value
2-butoxyethanol (CAS 111-76-2)	TWA	20 ppm
ammonia (CAS 7664-41-7)	STEL	35 ppm
	TWA	25 ppm
isopropyl alcohol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value
2-butoxyethanol (CAS 111-76-2)	TWA	20 ppm
ammonia (CAS 7664-41-7)	STEL	35 ppm
	TWA	25 ppm
isopropyl alcohol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

Components	Type	Value
2-butoxyethanol (CAS 111-76-2)	TWA	97 mg/m3
ammonia (CAS 7664-41-7)	STEL	20 ppm 24 mg/m3
		35 ppm
	TWA	17 mg/m3 25 ppm
isopropyl alcohol (CAS 67-63-0)	STEL	1230 mg/m3
		500 ppm
	TWA	983 mg/m3 400 ppm

**Biological limit values**

ACGIH Biological Exposure Indices		Determinant	Specimen	Sampling Time
Components	Value			
2-butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*

**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
isopropyl alcohol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*

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

<b>Exposure guidelines</b>	No exposure standards allocated.
<b>Appropriate engineering controls</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Wear protective gloves such as: Nitrile. Rubber.
<b>Other</b>	Wear appropriate chemical resistant clothing. Wear suitable protective clothing.
<b>Respiratory protection</b>	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

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### Appearance

**Physical state** Liquid.

**Form** Liquid.

**Color** Light blue.

**Odor** Ammoniacal.

**Odor threshold** Not available.

**pH** 10.6

**Melting point/freezing point** 30 °F (-1.1 °C)

**Initial boiling point and boiling range** 179.6 °F (82 °C) estimated

**Flash point** None (Tag Closed Cup)

**Evaporation rate** Slow.

**Flammability (solid, gas)** Not available.

### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** 1.3 % estimated

**Flammability limit - upper (%)** 25 % estimated

**Explosive limit - lower (%)** 1.3 % estimated

**Explosive limit - upper (%)** 25 % estimated

**Vapor pressure** 23.1 hPa estimated

**Vapor density** > 1 (air = 1)

**Relative density** 0.99

### Solubility(ies)

**Solubility (water)** Soluble.

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** 446 °F (230 °C) estimated

<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Percent volatile</b>	99.8 % estimated

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

**Acute toxicity** Not classified.

Product	Species	Test Results
HydroForce® Glass Cleaner		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	92426 mg/kg estimated
<b>Inhalation</b>		
LC50	Rat	114 mg/l, 4 hours estimated
<b>Oral</b>		
LD50	Rat	44850 mg/kg estimated

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.  
**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

### Respiratory or skin sensitization

#### Canada - Alberta OELs: Irritant

2-butoxyethanol (CAS 111-76-2) Irritant

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

#### ACGIH Carcinogens

2-butoxyethanol (CAS 111-76-2) A3 Confirmed animal carcinogen with unknown relevance to humans.  
isopropyl alcohol (CAS 67-63-0) A4 Not classifiable as a human carcinogen.

**Canada - Manitoba OELs: carcinogenicity**

2-BUTOXYETHANOL (EGBE) (CAS 111-76-2)  
 2-PROPANOL (CAS 67-63-0)

Confirmed animal carcinogen with unknown relevance to humans.  
 Not classifiable as a human carcinogen.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

2-butoxyethanol (CAS 111-76-2)

3 Not classifiable as to carcinogenicity to humans.

**Reproductive toxicity**

This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure**

Not classified.

**Specific target organ toxicity - repeated exposure**

Not classified.

**Aspiration hazard**

Not an aspiration hazard.

**Chronic effects**

May be harmful if absorbed through skin.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

**Further information**

This product has no known adverse effect on human health.

**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.

Components	Species	Test Results
2-butoxyethanol (CAS 111-76-2)		
<b>Aquatic</b>		
<i>Acute</i>		
Crustacea	EC50	Water flea (Daphnia magna) 1550 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss) >= 1000 mg/l, 96 hours
ammonia (CAS 7664-41-7)		
<b>Aquatic</b>		
Fish	LC50	Chinook salmon (Oncorhynchus tshawytscha) 0.43 - 0.47 mg/l, 96 hours
isopropyl alcohol (CAS 67-63-0)		
<b>Aquatic</b>		
<i>Acute</i>		
Crustacea	EC50	Water flea (Daphnia magna) 7550 - 13299 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 9640 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability**

No data is available on the degradability of this product.

**Bioaccumulative potential****Partition coefficient n-octanol / water (log Kow)**

2-butoxyethanol 0.81, log Pow

**Bioconcentration factor (BCF)**

isopropyl alcohol 3.16

**Mobility in soil**

No data available.

**Other adverse effects**

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**13. Disposal considerations****Disposal of waste from residues / unused products**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations**

Dispose in accordance with all applicable regulations.

**Contaminated packaging**

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

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**TDG**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

## 15. Regulatory information

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**Canadian regulations** This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

**Controlled Drugs and Substances Act**

Not regulated.

**Export Control List (CEPA 1999, Schedule 3)**

Not listed.

**Greenhouse Gases**

Not listed.

**Precursor Control Regulations**

Not regulated.

**International regulations****Stockholm Convention**

Not applicable.

**Rotterdam Convention**

Not applicable.

**Kyoto protocol**

Not applicable.

**Montreal Protocol**

Not applicable.

**Basel Convention**

Not applicable.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply 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).

## 16. Other information

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**Issue date** 08-22-2016

**Version #** 01

**Further information** CRC # 434D

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