

# SAFETY DATA SHEET

# 1. Identification

Product identifier Glass Cleaner

Other means of identification

Product code 05401

**Recommended use** Glass cleaner **Recommended restrictions** None known.

Manufacturer/Importer/Supplier/Distributor information

Company name CRC Industries, Inc.

Address 885 Louis Dr.

Warminster, PA 18974 US

**Telephone** 

 General Information
 215-674-4300

 Technical Assistance
 800-521-3168

 Customer Service
 800-272-4620

 24-Hour Emergency
 800-424-9300 (US)

(CHEMTREC) 703-527-3887 (International)
Website www.crcindustries.com

## 2. Hazard(s) identification

Physical hazards Gases under pressure Liquefied gas

Health hazards Not classified.

Environmental hazards Hazardous to the aquatic environment, acute Category 3

hazard

Hazardous to the aquatic environment,

Category 3

OSHA defined hazards Not classified.

Label elements



Signal word Warning

Hazard statement Contains gas under pressure; may explode if heated. Harmful to aquatic life with long lasting

effects.

**Precautionary statement** 

**Prevention** Do not puncture or incinerate container. Do not expose to heat or store at temperatures above

49°C/120°F. Use with adequate ventilation. Open doors and windows or use other means to

ensure a fresh air supply during use. Avoid release to the environment.

**Response** Wash hands after handling.

Storage Protect from sunlight. Store in a well-ventilated place. Exposure to high temperature may cause

can to burst.

**Disposal** Dispose of contents/container in accordance with local/regional/national regulations.

Hazard(s) not otherwise

classified (HNOC)

None known.

### 3. Composition/information on ingredients

#### **Mixtures**

Chemical name	Common name and synonyms	CAS number	%
water		7732-18-5	80 - 90

Chemical name	Common name and synonyms	CAS number	%	
liquefied petroleum gas		68476-86-8	5 - 10	
2-butoxyethanol		111-76-2	1 - 3	
ethanol		64-17-5	1 - 3	
ammonia		7664-41-7	< 1	
methanol		67-56-1	< 0.2	

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Call a POISON CENTER or doctor/physician.

Most important symptoms/effects, acute and

symptoms/effects, acute and delayed

Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

**General information** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

Fire-fighting equipment/instructions

General fire hazards

In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without

risk. Containers should be cooled with water to prevent vapor pressure build up.

## 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). This product is miscible in water. Prevent product from entering drains. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

**Environmental precautions** 

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

### 7. Handling and storage

### Precautions for safe handling

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, please see the product label.

Material name: Glass Cleaner SDS US

Level 1 Aerosol.

Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

# 8. Exposure controls/personal protection

### Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910)
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Components	Туре	Value	
2-butoxyethanol (CAS 111-76-2)	PEL	240 mg/m3	
		50 ppm	
ammonia (CAS 7664-41-7)	PEL	35 mg/m3	
		50 ppm	
ethanol (CAS 64-17-5)	PEL	1900 mg/m3	
		1000 ppm	
methanol (CAS 67-56-1)	PEL	260 mg/m3	
		200 ppm	
US. ACGIH Threshold Limit Values	5		
Components	Туре	Value	
2-butoxyethanol (CAS 111-76-2)	TWA	20 ppm	
ammonia (CAS 7664-41-7)	STEL	35 ppm	
	TWA	25 ppm	
ethanol (CAS 64-17-5)	STEL	1000 ppm	
methanol (CAS 67-56-1)	STEL	250 ppm	
	TWA	200 ppm	
US. NIOSH: Pocket Guide to Chem	nical Hazards		
Components	Туре	Value	
2-butoxyethanol (CAS 111-76-2)	TWA	24 mg/m3	
		5 ppm	
ammonia (CAS 7664-41-7)	STEL	27 mg/m3	
		35 ppm	
	TWA	18 mg/m3	
		25 ppm	
othered (CAC C4 47 E)	TWA	1900 mg/m3	
ethanoi (CAS 64-17-5)	1 4 4 7		
ethanor (CAS 64-17-5)	IVVA	1000 ppm	
ethanol (CAS 64-17-5) methanol (CAS 67-56-1)	STEL	<u> </u>	

### **Biological limit values**

**ACGIH Biological Exposure Indices** 

Components	Value	Determinant	Specimen	Sampling Time
2-butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*
methanol (CAS 67-56-1)	15 mg/l	Methanol	Urine	*

TWA

### **Exposure guidelines**

## US - California OELs: Skin designation

2-butoxyethanol (CAS 111-76-2) methanol (CAS 67-56-1)

Can be absorbed through the skin. Can be absorbed through the skin.

260 mg/m3 200 ppm

Material name: Glass Cleaner SDS US

<sup>\* -</sup> For sampling details, please see the source document.

US - Minnesota Haz Subs: Skin designation applies

2-butoxyethanol (CAS 111-76-2) Skin designation applies. methanol (CAS 67-56-1) Skin designation applies.

**US - Tennessee OELs: Skin designation** 

2-butoxyethanol (CAS 111-76-2)

Can be absorbed through the skin.

Can be absorbed through the skin.

Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation** 

methanol (CAS 67-56-1)

Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2-butoxyethanol (CAS 111-76-2)

methanol (CAS 67-56-1)

Can be absorbed through the skin.

Can be absorbed through the skin.

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

2-butoxyethanol (CAS 111-76-2)

Can be absorbed through the skin.

Appropriate engineering

controls

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.

Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

Skin protection

**Hand protection** Wear protective gloves such as: Nitrile. Rubber.

Other Wear suitable protective clothing.

Respiratory protection 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.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

# 9. Physical and chemical properties

**Appearance** 

Physical stateLiquid.FormAerosol.ColorClear.

Odor Ammoniacal.
Odor threshold Not available.

**pH** 10.5

Melting point/freezing point Not available.

Initial boiling point and boiling

range

Flash point None.

Evaporation rate Slow.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower

1.3 % estimated

212 °F (100 °C) estimated

(%)

Flammability limit - upper

25 % estimated

(%)

Vapor pressure 280.3 hPa estimated

Vapor density > 1 (air = 1)

Relative density 0.97 estimated

Solubility (water) Soluble.

Partition coefficient (n-octanol/water)

Not available.

**Auto-ignition temperature** 

446 °F (230 °C) estimated

Decomposition temperatureNot available.Viscosity (kinematic)Not available.Percent volatile99.6 % estimated

# 10. Stability and reactivity

**Reactivity**The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability

Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid

Heat, flames and sparks. Contact with incompatible materials.

Incompatible materials
Hazardous decomposition

Strong oxidizing agents.

products

Carbon oxides. Aldehydes. Ketones. Organic acids.

## 11. Toxicological information

## Information on likely routes of exposure

**Inhalation** Prolonged inhalation may be harmful.

**Skin contact** 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.

**Eye contact** Direct contact with eyes may cause temporary irritation.

**Ingestion** Expected to be a low ingestion hazard.

Chasias

Symptoms related to the physical, chemical and toxicological characteristics

Direct contact with eyes may cause temporary irritation.

#### Information on toxicological effects

Acute toxicity Not known.

Components	Species	lest Results			
2-butoxyethanol (CAS 111-76-2)					
<u>Acute</u>					
Dermal					
LD50	Rabbit	> 2000 mg/kg			

Took Dooulto

**Oral** LD50

Componente

LD50 Rat 1300 mg/kg

ammonia (CAS 7664-41-7)

Acute Inhalation

LC50 Rat 2000 ppm, 4 Hours

Oral

LD50 Rat 350 mg/kg

ethanol (CAS 64-17-5)

<u>Acute</u>

Dermal

LD50 Rabbit 20 g/kg

Inhalation

LC50 Rat 8000 mg/l, 4 hours

Oral

LD50 Rat 6.2 g/kg

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ComponentsSpeciesTest Resultsmethanol (CAS 67-56-1)

Acute Dermal

LD50 Rabbit 12800 mg/kg

Inhalation

LC50 Rat 64000 ppm, 4 hours

Oral

LD50 Rat 5628 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye Direct contact with eyes may cause temporary irritation.

irritation

**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** Not classifiable as to carcinogenicity to humans.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

2-butoxyethanol (CAS 111-76-2) 3 Not classifiable as to carcinogenicity to humans.

## OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

#### US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

**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 classified.

**Chronic effects** May be harmful if absorbed through skin. Prolonged inhalation may be harmful.

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.

# 12. Ecological information

**Ecotoxicity** Harmful to aquatic life with long lasting effects.

Components		Species	Test Results
2-butoxyethanol (CAS	3 111-76-2)		
Aquatic			
Acute			
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)		
Aquatic			
Fish	LC50	Chinook salmon (Oncorhynchus tshawytscha)	0.43 - 0.47 mg/l, 96 hours
ethanol (CAS 64-17-5	)		
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	7.7 - 11.2 mg/l, 48 hours

Material name: Glass Cleaner SDS US

<sup>\*</sup> Estimates for product may be based on additional component data not shown.

Components **Species Test Results** LC50 Fathead minnow (Pimephales promelas) > 100 mg/l, 96 hours Fish

methanol (CAS 67-56-1)

Aquatic

Crustacea EC50 Water flea (Daphnia magna) > 10000 mg/l, 48 hours Fish LC50 Fathead minnow (Pimephales promelas) > 100 mg/l, 96 hours

#### Persistence and degradability

#### Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

2-butoxyethanol 0.81, log Pow

ethanol -0.31methanol -0.77

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 The dispensed liquid product is not a RCRA hazardous waste (See 40 CFR Part 261.20 - 261.33). Empty container can be recycled. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.

Not regulated. Hazardous waste code

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

DOT

UN1950 **UN number** 

**UN proper shipping name** 

Aerosols, non-flammable, Limited Quantity

Transport hazard class(es) **Class** 

> Subsidiary risk Label(s) 2.2

Packing group Not applicable.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

306 Packaging exceptions Packaging non bulk None Packaging bulk None

IATA

**UN** number UN1950

**UN proper shipping name** Aerosols, non-flammable, Limited Quantity

2.2

Transport hazard class(es)

Class 2.2 Subsidiary risk

Not applicable. Packing group

**ERG Code** 

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Passenger and cargo

Allowed with restrictions.

aircraft

Other information

Allowed with restrictions. Cargo aircraft only

**IMDG** 

**UN** number UN1950

**UN proper shipping name** AEROSOLS, LIMITED QUANTITY

Material name: Glass Cleaner SDS US

<sup>\*</sup> Estimates for product may be based on additional component data not shown.

Transport hazard class(es)

Class 2 Subsidiary risk -

Packing group Not applicable.

**Environmental hazards** 

Marine pollutant No.

EmS Not available.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

### 15. Regulatory information

**US** federal regulations All components are on the U.S. EPA TSCA Inventory List.

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

2-butoxyethanol (CAS 111-76-2)

**CERCLA Hazardous Substance List (40 CFR 302.4)** 

2-butoxyethanol (CAS 111-76-2) Listed.

**CERCLA Hazardous Substances: Reportable quantity** 

Not listed.

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

ethanol (CAS 64-17-5) Low priority

Food and Drug

Not regulated.

Administration (FDA)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 Immediate Hazard - No Hazard categories Delayed Hazard - No

Fire Hazard - No Pressure Hazard - Yes Reactivity Hazard - No

SARA 302 Extremely No

hazardous substance

#### **US** state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd.

(a))

2-butoxyethanol (CAS 111-76-2)

ammonia (CAS 7664-41-7)

liquefied petroleum gas (CAS 68476-86-8)

methanol (CAS 67-56-1)

US. New Jersey Worker and Community Right-to-Know Act

2-butoxyethanol (CAS 111-76-2) ammonia (CAS 7664-41-7)

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SDS US

ethanol (CAS 64-17-5) methanol (CAS 67-56-1)

### **US. Massachusetts RTK - Substance List**

2-butoxyethanol (CAS 111-76-2) ammonia (CAS 7664-41-7) ethanol (CAS 64-17-5) methanol (CAS 67-56-1)

### US. Pennsylvania Worker and Community Right-to-Know Law

2-butoxyethanol (CAS 111-76-2) ammonia (CAS 7664-41-7) ethanol (CAS 64-17-5) methanol (CAS 67-56-1)

### **US. Rhode Island RTK**

2-butoxyethanol (CAS 111-76-2) ammonia (CAS 7664-41-7) ethanol (CAS 64-17-5) methanol (CAS 67-56-1)

#### **US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

#### US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

methyl isobutyl ketone (CAS 108-10-1) Listed: November 4, 2011

## US - California Proposition 65 - CRT: Listed date/Developmental toxin

methanol (CAS 67-56-1) Listed: March 16, 2012 methyl isobutyl ketone (CAS 108-10-1) Listed: March 28, 2014

## Volatile organic compounds (VOC) regulations

**EPA** 

VOC content (40 CFR 9.6 %

51.100(s))

Consumer products Compliant (40 CFR 59, Subpt. C)

State

**Consumer products** This product is regulated as a Glass Cleaner (aerosol). This product is compliant for use in all 50

states.

 VOC content (CA)
 9.6 %

 VOC content (OTC)
 9.6 %

#### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
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, including date of preparation or last revision

**Issue date** 04-22-2015

Revision date 05-11-2017
Prepared by Allison Cho

Version # 02

Further information CRC # 411A

HMIS® ratings Health: 1
Flammability: 0

Physical hazard: 0 Personal protection: B

NFPA ratings Health: 1

Flammability: 0 Instability: 0

**NFPA** ratings



**Disclaimer** The information contained in this document applies to this specific material as supplied. It may not

be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety

professional, or CRC Industries, Inc..

**Revision Information** This document has undergone significant changes and should be reviewed in its entirety.